CONTENTS

OF THE

MEDICAL QUARTERLY REVIEW,

No. IV. JULY 1, 1834.

REVIEWS.

I.

Pathological and Surgical Observations on the Diseases of the Joints. By B. C. Brodie, V.P.R.S., Serjeant Surgeon to the King, and Surgeon to St. George's Hospital. Third Edition . . . 241

II.

Chemistry, Meteorology, and the Function of Digestion, considered with reference to Natural Theology. By William Prout, M.D., F.R.S., . 267

III.

Cours Théorique et Pratique d'Accouchemens. Par J. Capuron, M.D. 273

IV.

The Edinburgh Medical and Surgical Journal . . 280
- Dr. Turnbull's Med.-Chirurg. Report of the Huddersfield Infirmary ib.
- Mr. Poole's Account of an Epidemic Gastric Fever . 381
- Dr. Churchill's Report of Diseases of Lying-in Women, &c. . ib.
- Dr. Henry on Sulphate of Magnesia . . 282
- Dr. Smith on Insanity 284
- Dr. Craigie's Clinical Report . . . ib.
- Dr. Spittal on Diseases of the Heart . . 285
- Dr. Malcolm on Spontaneous Evolution of Fœtus . 286
- Dr. Murray on the Tests for Arsenic . . 287
- Mr. Roberton on the Relaxation, &c. of the Uterus and Bladder in the Puerperal State . . . . ib.

V.

The Anatomy and Physiology of the Liver. By Francis Kiernan, Esq. 288

VI.

On the Ulcerative Process in Joints. By C. Aston Key, Esq. . 256
A Practical Treatise on Diseases of the Joints. By W. J. Wickham, Esq. ib.

VII.

The Principles and Practice of Obstetricy, as at present taught by James Blundell, M.D. 308

VIII.

Der Alp, sein Wesen und seine Heilung. Eine Monographie, von Moritz Strahl, Dr. der Medizin, &c. . . . 315

Reviews continued.

IX.

Consumption Curable; and the Manner in which Nature as well as Remedial Art operates in effecting a Healing Process in Cases of Consumption, &c. By Francis Hopkins Ramadge, M.D. . . 320

X.

The Principles of Diagnosis. By Marshall Hall, M.D. . 325

XI.

Abhandlungen aus dem Gebiete der Practischen Medicin und Chirurgie. Vou Dr. Adolph. Leop. Richter, &c. . . . 331

XII.

The Anatomy of the Human Eye. By John Dalrymple, Esq. . 340

XIII.

Leçons de Clinique Médicale, faites a l'Hôtel Dieu de Paris, par le Professeur A. F. Chomel; recueillies et publiées sous ses yeux, par J. L. Genest, D.M.P. 343

XIV.

The Transactions of the Provincial Medical and Surgical Association . 351
- Dr. Bardsley on the Efficacy of Strychnine in some Forms of Paralysis ib.
- Mr. Thompson on Chronic Peritonitis . . . 357
- Mr. Dawson's Case of Lithotomy by the Rectum . . ib.
- Mr. Grindrod's Case of Hydrophobia . . 360
- Mr. Pritchard's Tuberculous Affection of the Kidney . 361
- Mr. W. F. Morgan on Dislocation of the Shoulder . 363
- Dr. J. K. Walker on the Diseases of Children . . 364
- Mr. E. A. Jennings on the Hydrostatic Test . . 365

XV.

Principles and Illustrations of Morbid Anatomy; adapted to the Elements of M. Andral, and to the Cyclopædia of Practical Medicine, &c. By J. Hope, M.D., F.R.S. 367

XVI.

An Inquiry into the Principles and Practice of Medicine, founded on original Physiological Investigations. By G. Calvert Holland, M.D., &c. 370

XVII.

A New Synopsis of Nosology, founded on the Principles of Pathological Anatomy, and of the Natural Affinities of Diseases. By G. Hume Weatherhead, M.D. 383

XVIII.

Hortus Medicus, or Figures and Descriptions of the more important Plants used in Medicine, or possessed of Poisonous Qualities; with their Medical Properties, Chemical Analysis, &c. &c. By George Graves, F.L.S. &c. 385

XIX.

The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education. By Andrew Combe, M.D. 388

Reviews continued.

XX.

The Gardener's Dictionary, &c. By PHILIP MILLER, F.R.S. &c. . 390

XXI.

Observations on the present System of Medical Education, with a View to Medical Reform. By A LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON. 391

XXII.

The Magazine of Botany and Gardening, British and Foreign. Edited by JAMES RENNIE, M.A. 394

XXIII.

Vindiciæ Medicæ; or, a Defence of the College of Physicians . ib.

XXIV.

Medica Sacra; or, Short Expositions of the most important Diseases mentioned in the Sacred Writings. By THOMAS SHAPTER, M.D. . 396

XXV.

Illustrations of the Elementary Forms of Disease. By R. CARSWELL, M.D. 397

XXVI.

The Cyclopædia of Practical Surgery. By WILLIAM BLOXAM, Esq., M.R.C.S. Revised by CHARLES MILLARD, Esq., M.R. . . . 398

XXVII.

The Anatomy and Operative Surgery of Inguinal and Femoral Hernia. By VALENTINE FLOOD, A.M. M.D., &c. . . . ib.

XXVIII.

Pharmacopœia Homœopathica. Edidit T. F. QUIN, M.D. . 399

XXIX.

The Signs, Disorders, and Management of Pregnancy; the Treatment to be adopted during and after Confinement; and the Management and Disorders of Children. Written expressly for the Use of Females. By DOUGLAS FOX, F.R.C.S. 401

Original Communications.

Cases extracted from the Note-book of HENRY DAVIES, M.D., Physician to the British Lying-in Hospital, &c. . . . 402

On the Sense of Equilibrium, and on its Disturbance. By H. MAYO, F.R.S. 405

Comparison of the Circular and Flap Operations in amputating the Thigh. By HERBERT MAYO, F.R.S. 411

Observations on Catarrhal and Catarrho-rheumatic Ophthalmia. By FREDERICK TYRRELL, Esq. 416

Observations on the Treatment of Bronchocele. By JAMES REID, Esq. 425

A Case, in which a Collection of Fluid and Coagulable Matter, to the amount of several Pints, took place between the Membranes of the Brain 446

Case of Strangulated Hernia, with Adhesions to the Sac. By JOHN VALENTINE, M.R.C.S. 448

MR. MAYO on Sir CHARLES BELL'S Discoveries . . . 451

COLLECTANEA.

PATHOLOGY AND PRACTICE.

On the Circular and Flap Operations . . . 452
Condylomata cured by Creosote 453
In what Dose should Digitalis be given? . . . 454
Rupture of a Varicose Tumour in the Vagina during Labour . 455
Sneezing 456
Case of Disease of the Sympathetic Nerve . . . 457
Treatment of the Venereal Disease in the Hospital of the 72d Regiment, at the Cape of Good Hope 459
Deep-seated Abscess of the Thigh . . . ib.
On the Death of New-born Infants depending on Anormal States of the Umbilical Cord. By Dr. Kohlschwetter . . 462
Efficacy of the Extract of Belladonna in Strangulated Hernia . 465
On the Division of the Tendo Achillis as a Means of curing Club-foot 466
Conversion of the Right Lung into an Encephaloid Structure . 468
Chronic Disorders of the Heart 471
Pathology of the Fœtus 473
Phlegmasia Dolens in Men 475
Hypertrophy of the Mammæ 477
Triple Quotidian Ague 479

MISCELLANEOUS.

King James's Counterblaste to Tobacco . . . ib.
State of Drugs in London 481
Mr. Richmond's Musical Performance : . . 483
Theory of Animal Magnetism 484
State Medicine in Germany 486
John Hunter.—Symptoms of Pain in the Horse . . . 489
Small Hospitals.—Pure Tannin 490
On the Action of Chlorine on Metallic Iodides . . . 491

Medical Politics and Intelligence.

What can the Legislature do for us? 492
Self-supporting Dispensaries 494
Meteorological Register. Notices 496

Advertising Sheet—(see End of the Number.)

THE

MEDICAL
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REVIEWS.

Pathological and Surgical Observations on the Diseases of the Joints. By B. C. Brodie, v.p.r.s., Serjeant Surgeon to the King, and Surgeon to St. George's Hospital. *Third Edition.* London, 1834. 8vo. pp. 344.

Science, like history, has its epochs. The eras of history commemorate the foundation or destruction of empires, by the arms of conquerors or the machinations of statesmen: those of science relate only to the establishment of truth and the overthrow of error, through the inspirations of genius or the labours of industry. The former record the progress of mankind from barbarism to civilization; the latter are the registers of the advancement of the human mind from ignorance and imbecility to a state of vigour and intelligence. The historian avails himself of the former as points of sight, from which he may survey and classify past events; they serve, like that "exceeding high mountain," whence were seen the kingdoms of the world, and the glory of them, to enable him to compare their various policy, and their relative degrees of prosperity. The philosopher considers the latter not only as landmarks in his course, but as spots where he may conveniently repose to reflect on his acquisitions, and rejecting, as impediments to his progress, whatever time has shown to be unsound, may dispose all that he has ascertained to be truth so that it shall be useful to him in his subsequent inquiries.

The appearance of Mr. Brodie's papers in the Medico-Chirurgical Transactions formed an epoch in our knowledge of diseases of the joints, and the publication of his third edition, enriched with the experience of twenty years' extensive practice, may with propriety be accounted as another.

As Mr. Brodie's discoveries constitute nearly the Alpha and Omega of our information on this subject, a running commentary on the alterations to be found in the present edition will put us most readily in possession of all substantial improvements; more especially as his candour (always an accompaniment of real merit,) does not fail to appreciate the labours of others, and to award to them that credit to which they are entitled.

Another advantage will accrue from the plan which we propose. There is not a more healthy discipline for the mind than to follow the master-spirits of the world in their researches after truth,—to trace in their company the innumerable windings of that labyrinth in which she is concealed,—to observe with what steadiness they pursue her when once she is discovered, and with what judgment they throw aside the errors with which she is encumbered,—and to witness the struggles by which they draw her from her hiding-place, to exhibit her in all her simplicity and beauty, for the instruction of mankind. Such occupation, in such society, awakens all the powers of the mind, and gives a right tendency to its energies;—instructs it in the signals which indicate the proximity of truth, and renders it familiar with its presence;—accustoms it to oppose the difficulties in its course, and prepares it for setting out single-handed on its own investigations.

There is no science which requires such a discipline more imperatively than surgery, since in it we have no lucky chances or fortunate discoveries, observation and cautious induction being the only methods of prosecuting it with success; and there are no works from which better tuition in these respects may be obtained than from the writings of Mr. Brodie: for, during our comparison of the different editions, we have been struck with his great caution in the admission of any new views, or any modifications of old opinions. We meet with no hasty generalizations, founded on a limited experience, or on a partial consideration of his subject. He revolves each notion in his mind, till convinced not only of its general correctness, but of the accuracy of its minutest details, and then, and not till then, does he bestow on it the approbation of his judgment. Neither do we find in his works any silly remarks about not troubling his readers with cases: in the hands of this powerful alchemist, what others reject as dross is converted into the purest gold. His cases are introduced into every portion of the treatise. Does he wish to describe pathological appearances? a case provides him with the means:—is he about to detail a train of symptoms? it is to a variety of cases that he has recourse. Like the pillars in the temple of Esculapius, they not only record the individual cures which he has performed, but constitute an integral part of that fabric which they at once support and adorn.

But we shall not detain our readers with any more of our remarks, lest they should feel towards us as we have occasionally felt towards the utterers of a long grace before meat; but proceed, without further delay, to set before them the rich entertainment which the author has provided.

The present edition has been greatly enlarged, there being only two chapters that have not undergone some alteration. Many new facts have been introduced, and the descriptions of symptoms have, in some instances, been considerably amplified. The treatment has also received some slight modifications, principally consisting in stricter injunctions as to the preservation of absolute rest, and in the adoption of additional constitutional remedies. Besides these alterations, a new chapter has been inserted on malignant diseases of the joints, and that which treats of various other affections of the articulations has been entirely remodelled. There are, however, no important changes in the pathological arrangements, and we must confess that it was with no small pleasure that we perused the announcement of this fact in the introduction; for, though we are not accustomed, "jurare in verba magistri," yet, such is our respect for Mr. Brodie's judgment, that, had he found occasion to alter his opinions, we should have expected to have had much to unlearn.

The first section, on the *Pathology of Inflammation of the Synovial Membranes,* remains without any alteration till towards the conclusion, where the author is speaking of the occurrence of suppuration in joints without ulceration. The deposition of pus in the different textures of the body has of late been very carefully investigated, and the circumstances under which it is liable to take place are now much better understood than at the period of the publication of the second edition. Mr. Brodie, even at that time, had noticed that this species of suppuration occasionally existed, though he believed that it was only to be found after accidents, or after long-continued or violent inflammation. He is, however, now convinced that such depositions are by no means of unfrequent occurrence, especially in hospital practice; that they are the consequence of a peculiar morbid state of the system generally, following severe accidents or operations, but occasionally met with when the inflammation has not had its origin in any mechanical injury. He enters into no disquisition as to the method in which these deposits are formed, not even so much as to state whether he is a partisan of the theory which supposes them to depend on the absorption of the veins, or of that which attributes them to the agency of the nerves. We may however gather, from his use of the term deposit, that he rejects the simple hypothesis of Dupuytren, viz. that the patient, enfeebled by long illness, is readily affected by exposure to cold, and that the perspiration being suddenly checked, inflammation, of the kind which speedily terminates in suppuration, attacks some of the internal parts. Referring the reader who may be anxious for information on the subject to the papers of the late Mr. Rose and Mr. Arnott, in the Medico-Chirurgical Transactions, the author contents himself with the statement of the facts, and proceeds to detail the following case, in which the secretion of the inflamed synovial membrane was tinged of a dark reddish colour, in the manner mentioned by the latter writer.

"Henry Payne, thirty-nine years of age, was admitted into St. George's Hospital, under the care of Mr. Hawkins, on the 7th of October, 1829.

"He had suffered, formerly, from repeated attacks of rheumatism.

"About twelve weeks ago, after exposure to damp and cold, he was seized with inflammation in nearly all his joints. In the course of a few days, the disease in the other joints had abated; but the right knee became more painful and swollen. At the time of his admission, this knee was tender, painful, and much distended with fluid, and there was a good deal of febrile excitement of the system.

"Blood was taken from the neighbourhood of the knee by cupping; and this was followed by the application of blisters. The vinum colchici, and afterwards calomel, combined with opium, were administered internally. Under this treatment the pain and swelling of the knee subsided.

"On the 27th of October, he was attacked with severe inflammation of the fauces and larynx; which, however, soon yielded to the remedies employed.

"On the 31st, he complained of severe pain in the right side, with great difficulty of breathing; and on the 3d of November he died.

"On examining the body after death, the pleuræ were found inflamed, and incrusted with lymph, and serum had been effused into that of the right side. The lungs also were inflamed, and some portions of them were in a state of gangrene. The heart was affected with hypertrophy, and the pericardium was inflamed with flakes of lymph adhering to it. The synovial membrane of the right knee was full of a dark-coloured fluid; not purulent, but having the appearance of a thick synovia, tinged with blood. The synovial membrane was everywhere of a red colour, as if stained by this secretion, and the cartilages of the joint had the appearance of having been stained in the same manner. There were some small extravasations of blood in the cellular membrane external to the joint." (P. 14.)

In detailing the symptoms of inflammation of the synovial membrane, Mr. Brodie has enlarged upon the characteristics of this affection in the shoulder and hip-joints. The former may be recognized by the swelling of the shoulder at the onset of the disease, and by the crackling, on the motion of the limb, from the effusion of fluid into the neighbouring bursæ. In the latter stages of the malady, the affected joint appears smaller than the other, from the wasting of the deltoid muscle. When this disease attacks the hip-joint, there is some little difficulty in distinguishing it from incipient ulceration of the cartilages. The violence of the pain was only a term of comparison, and in many cases it might be doubtful whether it had not reached the severity required to denote the more serious form of disease. We are, however, now supplied with a diagnostic symptom, which may be readily detected, and which clearly points out the nature of the affection. It is well known that, in the ulceration of the cartilages of the hip-joint, the pain is always referred to the knee; not so in the inflammation of the synovial membrane: the patient, in the latter, always complains of pain in the upper and inner part of the thigh, immediately below the origin of the abductor longus muscle. This symptom, with the aid of others formerly recognized, as pain on the motion or extension of the joint, and the absence of pain on the pressure of the articulating cartilages against one another, will henceforth render the diagnosis comparatively easy.

Another fact mentioned by the author, independent of its intrinsic importance, possesses some interest from its having been known to the surgeons of former days, though of late it has been neglected, and, we believe, its possibility has been denied. Petit, in his "Traité des Maladies des Os," when enumerating the internal causes of dislocation, states, "Il y en a qui sont causées par la sinovie, qui chasse la tête de l'os de sa cavité;" and again, more clearly, "L'amas de la sinovie chasse les os de leur boëte ou cavité; cette liqueur à mesure qu'elle s'accumule éloigne peu à peu la tête de l'os de sa cavité, ce qui est cause de luxation, et souvent d'anchilose."

Sir Astley Cooper has omitted this cause of secondary dislocation, though he has mentioned all the others; and we therefore conclude that he does not believe in its existence.

Mr. Brodie, however, has no doubt that dislocation sometimes arises from this cause; and he not only furnishes us with an explanation of the mode in which it happens, but relates the case of a young gentleman in whom it occurred.

At the conclusion of the section, the author recounts the various modifications of which inflammation of the synovial membrane is susceptible; but, as this summary is replete with original and highly valuable matter, and at the same time is narrated so concisely that it would be difficult to abridge, we shall quote it in his own words.

"It is to be supposed that the character which inflammation of the synovial membrane assumes must, in a great degree, depend on the peculiar constitution of the patient. It is, however, modified by a variety of other circumstances.

"I have already observed, that the symptoms are, for the most part, more severe, and that there is a greater disposition to terminate in the effusion of coagulated lymph, and thickening of the synovial membrane, where the inflammation is strictly local, than where it is the result of some disease affecting the general system.

"In syphilitic cases, it seldom happens that more than one or two joints are affected at the same time. In the early stage of syphilis, the inflammation is usually an accompaniment of a papular eruption or lichen; there is then but little pain; fluid is effused only in small quantity; and when this has become absorbed, the joint is restored as nearly as possible to its original condition. In the more advanced stage of syphilis, we find it existing in combination with nodes: and here it is productive altogether of much more inconvenience to the patient; is more difficult to be relieved; and the synovial membrane is left thickened, and the joint somewhat larger than natural, after the fluid has disappeared. In cases of the last description, it is often impossible to determine, whether the disease can with most reason be attributed to the agency of the syphilitic poison, or to the repeated exhibition of mercury.

"In cases of rheumatism, several joints are frequently affected, either at the same time, or in succession: and the synovial membranes which constitute the bursæ mucosæ and sheaths of the tendons often participate in the disease. There is usually a good deal of pain and swelling, and the joints are often left stiff and enlarged afterwards. Where the inflammation is connected with gout, the pain is generally out of all proportion to the other symptoms of inflammation; and the patient compares his sensations to those which might be supposed to arise if the joint were compressed by a vice, or if it were violently torn open.

"There is a remarkable, yet not uncommon form of the disease, which may be considered as bearing a relation to both gout and rheumatism, but differing from them, nevertheless, in some essential circumstances. The synovial membrane becomes thickened, so as to occasion considerable enlargement of the joints, and stiffness, there being at the same time but little disposition to the effusion of fluid. In the first instance, the disease is often confined to the fingers; afterwards it extends to the knees and wrists; perhaps to nearly all the joints of the body. Throughout its whole course, the patient complains of but little pain; but he suffers, nevertheless, great inconvenience, in consequence of the gradually increasing rigidity of the joints, and the number which are affected in succession. The progress of the disease is usually very slow, and many years may elapse before it reaches what may be regarded as its most advanced stage. Sometimes, after having reached a certain point, it remains stationary, or even some degree of amendment may take place: I do not, however, remember any case in which it could be said that an actual cure had been effected. The individuals who suffer in the way which has been described, are, for the most part, those belonging to the higher classes of society, taking but little exercise, and leading luxurious lives: but there are exceptions to this rule, and the disease occasionally occurs in hospital practice; in men, and even in females, of active and temperate habits." (P. 24.)

The only objection which we can raise to this section on the symptoms of inflammation of the synovial membrane is, that even yet it is not long enough: we would much rather have been supplied with a description of the symptoms of the deposition of pus in the joints from the graphic pen of Mr. Brodie, than have been referred to the papers of Messrs. Rose and Arnott, however highly we may esteem their labours.

We shall now follow our author to the treatment of this disease. In his former editions his principal attention was bestowed on the local treatment, but he has now favoured us with the following directions as to the constitutional remedies to be employed in such cases.

"In cases in which inflammation of the synovial membrane is connected with rheumatism, those remedies may be employed with advantage which are useful in relieving rheumatism in other textures, such as opium combined with ipecacuanha, or other diaphoretics; preparations of the colchicum autumnale, and mercury. Of the two latter, I have found reason to believe that the colchicum is to be preferred, where several joints are affected, and where the synovial membranes which constitute the bursæ mucosæ and sheaths of the tendons participate in the disease. In such cases, the wine of the root of colchicum may be administered in doses varying from fifteen to thirty minims, three times daily, or, in some instances, the acetous extract of colchicum may be given in alterative doses of two or three grains every night. On the other hand, mercury is preferable where only one or two joints are affected at a time, but where there has been a manifest translation of the disease, either from some internal organ, or from one joint to another, the form of mercury most generally useful, under these circumstances, is that of calomel combined with opium; and it should be administered in such doses as to affect the gums, or to produce some other indication of its action on the general system.

"In those cases in which the patient complains of an excruciating grinding pain, or of a sensation as if the joint were torn open, and in which I have already stated that the disease probably bears some relation to gout, the relief produced by the exhibition of colchicum is even more remarkable than in cases of rheumatism; being, in some instances, almost immediate, after leeches and other remedies have been employed to no purpose.

"Where inflammation of the synovial membrane arises from syphilis, it will probably disappear under a well-regulated course of mercury; and where it seems to have arisen from the protracted or injudicious use of mercury, or from mercury acting on a peculiar constitution, sarsaparilla may be given with advantage. This last medicine is especially useful where the affection of the joints occurs in combination with diseases of the bones and periosteum.

"In cases of that peculiar chronic disease, which is described in the concluding part of the last section, in which many joints, and sometimes nearly all the joints of the extremities, are affected in succession, it is of importance that the greatest attention should be paid to the general health, so that it may be maintained in as good a state as possible. As long as he is capable of doing so the patient should take sufficient exercise, daily, to induce a moderate degree of perspiration; he should live on a simple diet, avoiding especially raw fruit and acids, and whatever is not of easy digestion; and taking fermented liquors only in small quantity. The bowels should be kept gently open by means of rhubarb, or compound decoction of aloes, or some other of the same class of aperients. It has appeared to me also that, in these cases, patients have derived benefit from the use of acetous extract of colchicum, exhibited at intervals of six or eight weeks, for ten or twelve successive nights, in small or alterative doses; and still more from the long-continued use of alkalis. The carbonate of potash usually agrees with the stomach better than the pure potash. Ten or fifteen grains may be given twice daily, in the middle of the day and evening, and continued, with occasional brief intermissions, for many months.

"But specific remedies are applicable to only a limited number of cases. For the most part, the disease is to be subdued by being treated as a simple local affection, and in no instance is such kind of treatment to be altogether neglected." (P. 28.)

Our readers will have noticed the frequent use of the word colchicum in the above extract. Mr. Brodie seems, indeed, to place great reliance upon its efficacy, and we have therefore no doubt that he has found it extremely serviceable.

But it must be remembered that of late years much of Mr. Brodie's experience has been amongst the higher ranks of society, of whose order gout is as much the prerogative as champagne and a carriage. It may therefore be doubted whether his practice is not modified in some degree by the change in the constitutions of his patients, and whether, amongst the lower orders, opium, sarsaparilla, and slight tonics, will not be found more serviceable than so debilitating a remedy as colchicum.

In former times, when diseases of the joints were attributed to acrimony of the synovia, it was recommended by Mr. Freke that an incision should be made into the joint, in order to prevent the pernicious consequences of its accumulation. The experience of surgeons soon led them to abandon this fatal practice: it was soon discovered that the admission of air into the cavity of an articulation was speedily followed by caries and abscess.

It has, however, been proposed of late to puncture the knee-joint, when much distended with fluid; and Mr. Brodie, with whom, we believe, the operation, as it is at present practised, originated, thus details the result of his experience as to its safety and advantages; and the circumstances, both in its favour and against it, are so justly stated, that his opinion probably approaches very closely to the truth.

"1st. In a thin person, if a few punctures be made with an instrument a very little broader than a couching-needle, by means of an exhausted cupping-glass applied over the punctures, a large quantity of fluid may be easily abstracted without the smallest danger, and with no inconsiderable relief to the patient. But, while inflammation exists, the relief is not permanent, the fluid being rapidly regenerated; so that in a day or two, or perhaps in a few hours, the swelling is as large as ever. If, on the other hand, the inflammation be already subdued, the absorption of the fluid usually goes on so rapidly, that any more expeditious method of removing it is unnecessary. 2dly. If suppuration has taken place in the joint, (not in consequence of ulceration, but from the surface of the synovial membrane,) a free opening made into it with a lancet will often be attended with the best effects. I have known, under such circumstances, anchylosis to become established almost immediately, and the patient to obtain a speedy cure with an anchylosed joint. The most prudent method of proceeding is to make a puncture with a needle first, and allow a small quantity of fluid to escape, so as to ascertain its nature. If it be not simply turbid serum, but actual pus, the lancet may be used afterwards." (P. 32.)

Mr. Brodie insists at some length upon the importance of rest in this, as in all affections of the joints; not only of that passive rest, which consists in keeping the limb quiet in bed, but of such support as may be derived from appropriate bandages. His description of those which he employs will be found in another part of this review, where we shall enter more fully into the subject of the different means of procuring absolute rest.

Every surgeon must have experienced the annoyance of a stiff joint after the occurrence of inflammation of the synovial membrane; and, if we may judge from the general tone of our author's expressions, and from the ingenuity which he has displayed in his search for a variety of remedies, we should conclude that his opinion of the probability of a perfect recovery is now more unfavourable than formerly. The means which he formerly recommended were frictions with dry powder, or with mercurial ointment and camphor, and the employment of a warm douche bath; to these he has now added the use of blisters and the vapour bath. He has likewise known much "benefit to arise from the use of moxa, in the way recommended by Mr. Boyle: that is, the application of it being so managed, that the heat should penetrate into the soft parts without making an eschar, and scarcely making a blister." In speaking of friction, Mr. Brodie adds this highly useful caution:

> "It is, however, a remedy which is applicable only under certain circumstances. We must always bear in mind that friction is useful in relieving some of the effects of disease, but not disease itself; and those who recommend it without attention to this principle, in these and in other cases, will often find it to be productive of very injurious consequences." (P. 38.)

Two additional cases of this affection are introduced; one (to which we formerly alluded,) to exemplify the consecutive dislocation of the hip, and the other to illustrate the good effects of puncturing the knee-joint, and of the exhibition of mercury.

Before we leave this section, we must advert for a moment to one portion of it, which, as it is to be found in the second edition, most of our readers must remember: we mean those cases in which disease of the joint accompanied or followed a purulent discharge from the urethra. We observe that Mr. Brodie always describes this discharge either as "resembling gonorrhœa," or simply "as a purulent discharge;" and in one instance he mentions "that the patient attributed the discharge to the infection of gonorrhœa." We are not certain whether these expressions have been employed accidentally, or whether they indicate the author's doubts as to the occurrence of inflammation of the synovial membranes as a consequence of gonorrhœa. We can scarcely believe the latter, since, in our own experience, (limited indeed, when compared with Mr. Brodie's,) several cases in which this has distinctly taken place have come under our observation. In one instance, the gentleman had been under our care for three weeks with a gonorrhœa, of the nature of which there could be no doubt, when he was attacked with inflammation of the synovial membrane of the right knee, which yielded to the treatment recommended by the author, viz. rest, the application of leeches, and the use of colchicum.

The chapters on *Ulceration of the Synovial Membrane*, and of *the Morbid Change of its Structure*, remain as in the former edition; we shall therefore pass over them, to the *Pathological Observations on Ulceration of the Articular Cartilages*. In the following sentences, the various causes of this disease are concisely stated.

> "1st. It may be the consequence of disease originating in the neighbouring soft parts, especially of inflammation of the synovial membrane; examples of which will be found among the cases related in the preceding chapters.
>
> "2dly. It may depend on a morbid condition of the cartilage itself; or,
>
> "3dly. On a chronic inflammation of the surface or substance of the bone with which it is connected.
>
> "4thly. It may be the result of a peculiar alteration in the condition of the cancellous structure of the bones, which is met with in young scrofulous persons." (P. 95.)

In the former edition no mention was made of ulceration of the cartilage occurring as a secondary disease, the primary disease having had the character of rheumatic inflammation of the periosteum and bone. The following case so well exemplifies its progress, and the morbid appearances after death, that we quote it at full length.

> "Sarah Holder, twenty-two years of age, was admitted into St. George's Hospital, on the 26th of July, 1827, with a diffused swelling extending from the upper part of the right thigh to the leg, a little below the knee. The swelling was most conspicuous in the immediate neighbourhood of the knee-joint; and from thence gradually became diminished, having no defined termination either above or below. It was somewhat elastic, the skin over it appearing glossy and tense, but not redder than natural. The patient complained of exquisite pain, especially on pressure. The pain was also aggravated by every motion of the knee, nevertheless it was principally referred, not to the joint itself, but to the thigh-bone immediately above it. In addition to these local symptoms, the

pulse was frequent; the tongue furred, and rather brown; the skin hot; and the countenance anxious, and expressive of much suffering. The condition of the patient was altogether a good deal similar to that which might be produced by severe rheumatic inflammation of the bone and peritoneum; and the history of the case seemed to justify the opinion that such was the nature of the disease, as the symptoms had begun without any precursory rigor on the day previous to her admission, and had been preceded, for an entire month, by rheumatic pains in the elbows and shoulders.

"Saline and antimonial medicines were exhibited: leeches were freely applied to the limb, and on the 28th of July, a pill, containing two grains of calomel and half a grain of opium, was exhibited twice daily. Under this treatment the gums became slightly affected, and the symptoms gradually abated. On the 3d of August, the mercurial pill was given only once daily; and, in the course of a few days more, it was altogether discontinued, blisters being at the same time applied to the limb.

"August 13. The swelling and pain had entirely left the upper part of the thigh; but there were still some remains of both in the immediate neighbourhood of the knee. Altogether, she was in a much better state with respect to the local symptoms, and the general health was improving.

"August 15. After an accidental exposure to cold, she had a rigor, followed by fever; and, at the same time, there was a recurrence of pain and swelling in the neighbourhood of the right knee, with some degree of pain and tenderness extending up the thigh, and down the leg. The swelling had the same character as formerly.

"August 20. She continued in nearly the same state, with painful startings of the limb, and perspirations at night. Pulse very frequent. She was directed to resume the use of calomel and opium.

"September 2. There was no material improvement as to the local symptoms: a blister was applied to the knee.

"She continued in nearly the same state, sometimes a little better, sometimes a little worse, with a very frequent pulse, and the general health, on the whole, declining, until the 7th of October; when an issue was made with caustic in the neighbourhoood of the knee. The issue seemed to occasion some abatement of the local symptoms. Her bodily powers, however, continued to decline, and she became affected with an ulcer over the sacrum, the result of long-continued pressure.

"October 14. She complained of severe pain in the left shoulder.

"October 15. She was seized with a vomiting and purging, accompanied with pain and tenderness of the abdomen and cold extremities. Pulse 140. At midnight she had a severe rigor.

"The vomiting and purging continued, in spite of the remedies which were employed. In the afternoon of October 16, she had another rigor, and in about two hours afterwards she expired.

"On examining the body, the knee-joint was found to contain neither pus nor synovia. The cartilage of all the bones which enter into the composition of the joint were ulcerated in several places, especially that of the inner condyle of the femur. A slight extravasation of blood had taken place into the cavity of the joint, apparently from the surfaces of the bone exposed in consequence of the ulceration of the cartilages. The periosteum could be easily peeled off the surface of the femur, and the bone underneath appeared to be more vascular than is natural. The stomach was distended with an acid fluid of a green colour, similar to what had been vomited on the day preceding death. The gall-bladder was full of a very pale yellow fluid. There were no other morbid appearances.

"The left shoulder, to which pain had been referred for a short time previous to death, was carefully examined, but no disease was detected in it." (P. 119.)

A case of the same nature is related in a subsequent part of the work, which terminated successfully, under the use of calomel, and the employment of a caustic issue.

In the history of the symptoms of ulceration of the cartilages, there are only a few verbal alterations, which we must omit, in order to bestow more attention upon the treatment of these affections. The only additions to the constitutional remedies are a full course of sarsaparilla, in such cases as are connected with a chronic inflammation of the bone in the neighbourhood, and the employment of mercury in that secondary form of the disease to which we have before adverted. Mr. Brodie is still in the habit of employing caustic issues, and other counter-irritants, locally, and speaks in the same decided manner of their utility in this form of the disease. But the great sheet-anchor to which he attaches the most importance, is rest. His directions on this subject are copious, but so valuable to the practical surgeon, that we shall quote them without abridgment. We shall at the same time introduce his account of the various bandages which he habitually employs for preventing the motion of the joints affected with inflammation of the synovial membrane.

"When the cartilages of the hip are ulcerated, the patient should be confined to his bed or couch, being never allowed to move from it on any occasion. If left to himself, he is generally inclined to lie on the side opposite to that of the disease. There are, however, good reasons why this position should be avoided, if possible. It necessarily distorts the pelvis, and increases the disposition to a lateral curvature of the spine. It also, in those cases in which the round ligament of the joints is destroyed, facilitates the escape of the head of the femur from the acetabulum, and the production of dislocation. Something may be done towards preventing this last effect, by interposing a pillow, or thick cushion, between the knees; and it is difficult to do more than this, after the patient has already been lying on his side for a considerable time: otherwise he should be placed on one of the bedsteads invented by Mr. Earle, lying on his back, with the shoulders and thighs somewhat elevated, and the latter as nearly as possible parallel to each other. This supersedes the necessity of having recourse to splints and bandages, and, with a view to the confinement of the hip-joint, is all that is required in the early stage of the disease.* At a later period, when, in consequence of the extensive destruction of the articulation, the muscles begin to cause a shortening or retraction of the limb, I have found great advantage to arise from the constant application of a moderate extending force, operating in such a manner as to counteract the action of the muscles. For this purpose an upright piece of wood may be fixed to the foot of the bedstead, opposite the diseased limb, having a pulley at the upper part. A bandage may be placed round the thigh above the condyle, with a cord attached to it, passing over the pulley, and supporting a small weight at its other extremity. I will not say that the effect of such a continuance is to prevent the shortening of the limb altogether; but I am satisfied that it will, in a number of instances, render it less than it would have been otherwise, at the same time preventing, or very much diminishing that excessive aggravation of the patient's sufferings with which the shortening of the limb is usually accompanied." (P. 145.)

"Of the above observations on the ulceration of the cartilages of the hip, many are applicable to the disease in other joints.

"In all cases it is indispensable that the parts affected should be kept in a state of the most complete repose, and this is to be accomplished by various means, accordingly as one or another joint is the seat of the disease. In some instances, when the disease is in the knee, or ankle, or tarsal joints, nothing can be done better in the first instance than simply to lay the joint on an air-pillow, which, if not much distended with air, gives an uniform, regular, and most convenient support on every side; but, for the most part, it is better to have recourse to splints made of pasteboard, or stiff leather, neatly moulded to the figure of the limb. When the disease is in the shoulder, the forearm should be supported by a light leathern coat, suspended from the waist or neck, and the arm should be kept constantly bound to the side; and when it is in the ankle, great advantage will often arise from the patient wearing a common wooden leg, which will enable him to take exercise for the maintenance of his general health, without aggravating the local disease." (P. 153.)

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* "On some occasions, however, it is convenient to fix the pelvis by a strap or bandage, passing over it, from one side of the bedstead to the other; and even the thigh may be fixed in the same manner."

"If the disease be far advanced, and there is danger of the cartilages being ulcerated, he will find it prudent to restrain the motions of the joint altogether, by the application of pasteboard splints, confined by a roller, or even by circular stripes of adhesive plaster on their outside. In other cases, the bandages, &c., recommended by Mr. Scott, in his ingenious work on the diseases of the joints, will be productive of the best results.* There is a bandage which is very well suited to cases of this kind, which, in one part of its circumference, is composed of a stiff leather, elsewhere of an elastic material, and secured by a lace or buckles, so that it admits of being secured with any degree of tightness. If the seat of the disease be in the knee, there may be a single piece of leather, adapted to the shape of the posterior part of the limb; if it be in the elbow, there may be a double piece of leather, one on each side, and thus the construction of it may be varied so as to adapt it to any of the other articulations. In some instances much support may be wanted, and the leather should be stiff and unyielding; extending a considerable way above and below the joint. In others, where little support is necessary, the leather may be more pliant, and it should not extend beyond the immediate neighbourhood of the part affected." (P. 36.)

In the above passage Mr. Brodie alludes to Mr. Scott's method of bandaging; and, as all of our readers must have heard of that gentleman's success, though they may not be acquainted with the means which he employs, we shall quote his account of them, from his work on Diseases of the Joints.

"In the first place, the surface of the joint, suppose the knee, is to be carefully cleansed by a sponge, soft brown soap, and warm water, and then thoroughly dried; next, this surface is to be rubbed by a sponge soaked in camphorated spirit of wine, and this is continued a minute or two until it begins to feel warm, smarts somewhat, and looks red. It is now covered with a soft cerate, made with equal parts of Ceratum Saponis and the Unguent. Hydr. fort. c. Camph. This is thickly spread on large square pieces of lint, and applied entirely around the joint, extending for at least six inches above and below the point at which the condyles of the femur are opposed to the head of the tibia: over this, to the same extent, the limb is to be uniformly supported by stripes of calico spread with the Empl. Plumbi of the London Pharmacopœia. These strips are above one inch and a half broad, and vary in length: some are fifteen inches, others a foot, others half these two lengths, and the shorter or longer are selected according to the size of the part round which they are to be applied. This is the only difficult part of the process. This adhesive bandage ought to be so applied as to preclude the motion of the joint, prevent the feeble coats of the blood-vessels being distended by the gravitation of their contents in the erect posture, and thereby promote their contraction. Over this adhesive bandage, thus applied, comes an additional covering of Empl. Saponis, spread on thick leather, and cut into four broad pieces; one for the front, the other for the back, the two others for the sides of the joint. Lastly, the whole is secured by means of a calico bandage, which is put on very gently, and rather for the purpose of securing the plaster, and giving greater thickness and security to the whole, than for the purpose of compressing the joint. This is an important point, as otherwise an application, which almost invariably affords security and ease, may occasion pain, with all its attendant mischief." (*Scott on Diseases of the Joints*, pp. 133—135.)

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* "A very convenient mode of applying bandages in these cases is as follows: Let it be supposed that the disease is in the knee. Circular stripes of leather, spread with the Emplastrum Plumbi, are to be applied round the joint, and extending some way above and below it; care being taken that a space is left for the patella, on which there ought to be as little pressure as possible. Over this a calico roller (four or five yards for an adult,) may be applied, and over this again a few circular stripes of linen, spread with adhesive plaster, with another calico roller over the whole. A bandage of this kind, carefully adjusted, may not require to be changed for six or eight weeks, and is very convenient to the patient."

We observe, in page 142 of Mr. Brodie's book, that he attributes the utility of Mr. Scott's plan of treatment to its maintaining the diseased joint in a state of absolute immobility; and we have no doubt that, if it did not do this, it would be utterly useless: but, on the other hand, we agree with Mr. Scott, that the constant excitation of the cutaneous vessels, and their exposure in this state to a powerful mercurial preparation, cannot be without its advantages. It must contribute to the absorption of the lymph effused in the neighbourhood of the diseased joint, and thereby put the vessels of the part into a more healthy condition; while, at the same time, it acts as a counter-irritant, in checking any chronic inflammation that may be going on within.

The section on *the Pathology and Symptoms of Scrofulous Disease of the Joints, arising in the Cancellous Structure of the Bone*, has been improved by the insertion of an additional case, and by an excellent description of the peculiar form of the swelling characteristic of this affection of the superficial joints. In speaking of the use of counter-irritants in this disease, Mr. Brodie states that he has known them of some service in certain instances of disease of the hip, where there was an unusual degree of pain and muscular spasm, attributable to irritation of the anterior crural nerve; but he continues to think that, in the great mass of these cases, they are certainly of no service, if not absolutely prejudicial. In the treatment of the constitution, he relies but little upon iodine, much as it has been lauded by some surgeons as a specific for scrofulous disease. His experience is, that it is useful in a few cases, and in very small doses; but he believes that the large doses in which it is sometimes exhibited have a tendency to diminish, rather than to increase the vital powers. He strongly recommends the use of liquor potassæ in full doses, combined with light bitters, and continued for a very long period. Great care should be taken to regulate the action of the bowels, and none but the plainest and most nutritious food should be permitted.

The author enters at considerable length into the question of the amputation of scrofulous joints, and his opinions are somewhat modified by his late experience. In his last edition he dwelt much upon the liability of the patient to visceral diseases, and his conclusions were summed up in these words:

> "I do not say that these considerations are sufficient to warrant the surgeon in forbidding an operation altogether, in all cases where it is not actually and indisputably necessary to save the patient's life; but they are certainly sufficient to make him cautious not to recommend and urge it too strongly. They show the prudence of delay in certain cases. Perhaps, after the lapse of one, or two, or more years, by means of proper medicines and a judicious attention to diet and mode of life, and still more in consequence of that change which the mere lapse of time may produce in the constitution of a young person, the patient's general health may be so far improved, that the diseased joint may be removed without that risk of subsequent mischief which would have been incurred at a former period." (Pp. 268-9, *second edition.*)

He has now adopted a rather more favourable opinion of these cases: he believes that the removal of the limb may, in some instances, prevent or suspend the visceral disease. But, in order to enable our readers to judge how far Mr. Brodie has modified his opinions, and upon what good grounds he has done so, we shall gratify them by quoting the passage.

> "But we may refer to another order of facts, as shewing that there are occasions in which the amputation of a scrofulous joint, instead of rendering other organs more liable to the same disease, may actually produce the opposite effect of preserving them from it. It is to be observed that such a disease of a joint is never more than the remote cause of death, and that, where the result is fatal, it invariably happens in the following manner. The patient is exhausted by hectic fever, and in this state of debility disease takes place in the mesentery or lungs, or not unfrequently in both these parts at the same time, and it is this visceral affection which immediately precedes dissolution. It is evident, then, that in many cases there is a period of time at which the amputation of the limb may be the means of preventing the establishment of a secondary

disease. Nor is this all. Visceral disease, which was previously in a state of inactivity, may assume a new form, and begin to make a rapid progress, under the influence of the disease of the joint; and amputation, under these circumstances, may be the means of preserving the patient, if not altogether, at least for a considerable time, perhaps for several years. A young woman was admitted into the hospital labouring under a scrofulous affection of the ankle. It was of long standing, and there were several abscesses communicating with extensive surfaces of carious bone. It was evident that there was no chance of cure for the disease in the joint. Nevertheless, I did not think it right to propose to the patient that she should submit to the loss of the limb, as she had a troublesome cough, with a purulent expectoration, and other marks of pulmonary disease. She however earnestly implored that the ankle might be removed, and at her request, and certainly against my own judgment, I performed the operation. The stump healed readily. The pulmonary symptoms almost immediately subsided. She lived for four or five years in tolerable health, but at the end of that period (as I have been informed,*) there were again manifest indications of disease within the chest, of which she ultimately died.

"It is evident, from these statements, that the question concerning amputation, is, in many instances, one of a complicated nature, requiring the exercise of no small degree of judgment and discrimination on the part of the surgeon, and not to be determined, except after a minute investigation of the whole case, with respect to the disease in the joint itself, and also in whatever relates to the state of the general health at the time, and that of the constitution previously." (P. 210.)

The subject of *Anchylosis* has also occupied Mr. Brodie's attention. His opinions are briefly these: that ulceration of the cartilages may exist without anchylosis being the consequence, but that in bad cases adhesions are formed in proportion to the severity of the attack. He gives the following excellent directions as to the conduct of the surgeon during its formation.

"It is never prudent to have recourse to any mechanical means for the purpose of preventing anchylosis taking place, lest a fresh attack of inflammation and abscess should be the consequence. We may however venture, when the circumstances of the case require it, to adopt measures for the purpose of gradually placing the limb in a more commodious position. For example: when the knee has been affected, if left to itself, it often happens that the leg becomes fixed at a right, or even an acute angle with the thigh; and a light apparatus may be applied to the limb, with a screw at the posterior part, by the agency of which the leg may be very slowly and cautiously extended. In like manner, if the elbow be in danger of being anchylosed in the straight position, it may be very gradually brought into a state of flexion. It is scarcely necessary to explain wherefore, in the knee-joint, the straight position is to be preferred to the bent; while in the elbow it is desirable to obtain the latter position instead of the former." (P. 213.)

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* Mr. Brodie has been misinformed as to the termination of this case. We have had an opportunity of seeing the patient of late, and she is perfectly healthy, and without any marks of visceral disease.

Two additional cases are introduced; one to illustrate the pathology of the disease, and the other to indicate the treatment which the author has of late found most efficacious.

If we were called upon to point out the portion of the work which has undergone the greatest improvement, we should certainly select that upon *Caries of the Spine.* The chapter on its pathology has been entirely remodelled. The various origins of the disease are more clearly arranged, and the whole exhibits that peculiar process of simplification with which it appears Mr. Brodie's object (as it should be that of every scientific man,) to invest every subject that he handles. There are, however, no new facts which especially require our notice; and, as we have already been rather lengthy, and have still much before us, we must proceed, without making any comments upon this part of the subject.

The symptoms of caries of the spine are of two orders; one connected with the disease of the bone, the other the effects of the disturbance of the nerves or spinal marrow. Mr. Brodie thus briefly enumerates them:

"1st. Pain and tenderness in the situation of the carious vertebræ.

"2dly. Curvature of the spine forward, with an angular projection of the spinous processes posteriorly, the result of the bodies of the vertebræ having been destroyed, while the other parts of these bones remain entire.

"3dly. Abscess commencing imperceptibly, but at last presenting itself as an external tumor.

"4thly. Pains, loss of sensation, coldness, muscular spasms, and paralysis of the extremities.

"5thly. Derangement of the functions of the various viscera, which are capable of being influenced by that portion of the spinal chord which is implicated in the disease." (P. 249.)

Of these it is of the most importance to study well the nature of the pain, as it is the only symptom which indicates the onset of the disease. The following is Mr. Brodie's description of it.

"In the majority of cases, the first symptom which the patient notices, is pain referred to that part of the spine in which the caries exists; at first trifling, but becoming more severe afterwards. The pain is aggravated by any sudden motion of the spine; by percussion, or by a jar communicated to it in any other way; as by stamping on the ground, striking the foot accidentally against a stone, sneezing, or coughing. In the advanced stage of the disease the pain is sometimes so severe, and so easily induced, that the patient cannot bear the slightest movement. Yet, in other cases, there is sometimes no pain in the spine whatever, from the first access of the disease to its termination." (P. 249.)

Then follow two cases in which the patients died from the disease, without once complaining of the slightest pain in the affected part.

Concerning the *Curvature,* the author only adds one remark, viz. that it can never exist until the disease has made some progress, during a period which varies from three months to two years.

The same observation applies to the formation of *Abscess,* with this addition, that, after it is formed, it may lie dormant for a long period, without affording any indication of its existence. It is however "usually attended with some derangement of the general health, such as loss of flesh and muscular power; increased frequency of the pulse; a slight access of fever in the evening, followed by perspiration at night; occasionally, but rarely rigors." But every surgeon knows that the symptoms vary according to the portion of the spine that is affected; and it is in his detail of these symptoms that the author has made such valuable additions to this part of his work. We can however afford room only for a small portion of them, and we shall therefore select, as a specimen of the whole, his description of caries of the cervical vertebræ.

"When there is caries of the cervical vertebræ, the patient complains, in the first instance, of pain in the neck, which is aggravated by every motion of the head, and which is not unfrequently mistaken for the muscular pains and stiffness connected with what is commonly called a stiff neck from cold. The pain gradually increases, and, according to my experience, is more liable to be severe than when the seat of the disease is in the lower part of the spine. When, in the progress of the disease, the spine has become incurvated forward, the angular projection posteriorly is observed to be trifling, except when the lowest or seventh cervical vertebra is implicated in the disease; a difference which is easily explained by the greater length of the spinous process of the latter, as compared with that of the spinous processes of the vertebræ above.

"Abscess connected with diseased cervical vertebræ usually presents itself among the muscles on the side of the neck. Occasionally it makes its way forward, forming a tumor, and afterwards breaking in the pharynx. I have seen one case in which the abscess penetrated into the theca vertebralis, and the whole of the spinal chord, from its origin to its termination, was bathed in pus. At an early period of the disease, the patient frequently complains of pains in the arms and shoulders. After some time these pains subside, but they are followed by complete paralysis of the upper extremities; while the muscles which derive their nervous influence from the spinal chord below the neck remain subject to the will. In a still more advanced stage of the disease, the paralysis extends to the muscles of the trunk and of the lower extremities. Then there are pains in the abdomen, which becomes distended and tympanitic, the bowels being at the same time obstinately costive. In all cases, there is pain in the occiput and temples; which is, however, most severe when the disease is situated in the two or three superior vertebræ. Not unfrequently the transverse ligament of the second vertebra is destroyed, and the consequence is, a dislocation of the odontoid process. Sometimes the dislocation is complete, and the patient, from the pressure made on the spinal chord, expires as suddenly as if the latter had been divided transversely. More frequently it happens that the displacement of the odontoid process is somewhat restrained by the pressure of the dura mater which lies over it. There is then some degree of pressure on the spinal chord, sufficient to excite irritation, but not sufficient to destroy its functions. Under these circumstances, the patient complains of increased pain in the head, followed by convulsions, stupor, dilated pupils, and other symptoms of effusion of fluid on the brain; and on examining the body, after death, we find that such effusion has actually taken place, there being a collection of fluid in the ventricles, or in the base of the cranium, or in both of these situations." (P. 254.)

We greatly regret that we are obliged to omit the author's description of *Disease of the Dorsal and Lumbar Vertebræ*, with an excellent account of what is commonly called *Psoas Abscess.* It is seldom that such exquisite morsels fall in the way of a reviewer, and it is therefore with great difficulty that we turn our back upon them, to proceed to the directions concerning the treatment of these cases. This may be briefly stated to consist in the employment of rest, (and the author prefers the use of Earle's bedstead,) and of issues in the neighbourhood of the diseased part. Mr. Brodie has long known that the latter were useful in some cases, and nearly useless in others, and his knowledge of their effects on diseases of the joints had led him to suspect that they were useful only in those cases where the disease did not commence in the cancellous structure. His subsequent experience has confirmed this opinion, and his present language is as follows:

"Nor, if my observations on the subject be well founded, is this to be regarded as a merely theoretical opinion. I have repeatedly known the greatest relief to follow the establishment of issues, where the patient has suffered severe pain in the situation of the carious vertebræ, presenting at the same time no distinct indications of a scrofulous diathesis; while in young persons, with fair complexions and dilated pupils, in whom the disease has proceeded with little or no pain, they have appeared to be either inefficacious, or actually injurious. It appears to me also that in caries of the spine, as well as in that of other joints, issues are to be employed only in the early stage of the disease, with a view to prevent suppuration, and that they are of no service after abscess has actually formed." (P. 268.)

We pass over the chapter upon *Tumors and Loose Cartilages in the Cavities of the Articulations,* as it remains unaltered, and we now approach the new chapter on *Malignant Diseases of the Joints.* These are of two kinds, carcinoma, and fungus hæmatodes. First, as respects carcinoma. Mr. Brodie has never known this to exist as a primary disease in the bones, but it has always been preceded by a similar affection of the breast, or some other glandular organ. Its existence has been indicated by pseudo-rheumatic pains, of different degrees of severity, and by extreme brittleness of the bones. Two cases are detailed; one of disease in the hip, which may be found in the second edition, Case lx., and the other of disease in the vertebræ. We quote the latter for the instruction of our readers.

"Case lxxi. A lady, about thirty-eight years of age, consulted me, in the spring of 1832, on account of a scirrhous disease of one breast. There was not a distinct scirrhous tumor imbedded in the substance of the breast, but a conversion of the gland itself into the scirrhous structure. The skin covering the breast was thickened, and manifestly contaminated by the disease.

"From this time I saw her occasionally, the disease in the breast making little or no apparent progress.

"During the night of the 10th of February, 1833, she suddenly became paralytic in the whole of the lower part of her person. She not only lost the power of using her lower limbs, but that of voiding her urine also; and it became necessary to empty the bladder by means of a catheter.

"The loss of muscular power was attended with a loss of sensibility as high as the navel and lowest dorsal vertebræ. When the catheter was introduced into the bladder, she was not sensible of its introduction.

"In the beginning of March the lower limbs became affected with involuntary convulsive movements, which were unattended by pain, but of which the patient complained that it was disagreeable for her to see them.

"When the paralysis first took place the urine was clear, and otherwise in a natural state; afterwards it became ammoniacal and offensive to the smell, depositing a thick mucus, with traces of phosphate of lime in it.

"On the 9th of April, 1833, the patient died.

"The body was examined by Mr. Cutler, who found the whole of the gland of the breast to have assumed a scirrhous structure.

"Several of the dorsal vertebræ were converted into a substance possessing considerable vascularity, of a gristly consistence, some of them containing no earthy matter whatever, so that they could be cut with a knife. Altogether the alteration in the condition of the vertebræ seemed to be very similar to that which had taken place in the head of the femur, in the case which was last described, except that, being more complete, it might be supposed to indicate a more advanced stage of the disease.

"The whole of the lower portion of the theca vertebralis was filled with a serous fluid.

"There was a deposit of earthy matter in the upper part of each lung; and about four ounces of serous fluid were contained in the cavity of the right pleura.

"The kidneys were of a dark colour, and highly vascular.

"The mucous membrane of the bladder bore marks of considerable inflammation. The ureters, pelves, and infundibula of the kidneys, were also inflamed, and in some parts lined with coagulated lymph. They were considerably dilated, and contained a putrid mixture of urine and mucus." (P. 283.)

Fungus hæmatodes more frequently attacks the bones than carcinoma, and, unlike it, occurs there as a primary disease. It is characterized by a slight degree of pain in the affected part, which is aggravated by exercise. The bone gradually enlarges, presenting a tumor, elastic in some parts, and hard in others, till, after some time, the motions of the joint are totally impeded. It is almost unnecessary to say that amputation, which is the only remedy, frequently fails in removing the disease from the system. We have abridged the following case, to illustrate the progress of this disease in the knee.

"Mr. O., twenty-five years of age, in January, 1828, first experienced a sensation of weakness in the right knee, with a slight pain, after walking even a short distance. These symptoms continued; and, in the course of two or three months, he observed a small tumor over the external condyle. * * *

"On the 25th January, 1829, he came to London. * * At this time there was a very considerable enlargement of the whole of the upper part of the knee-joint, so that it was four inches in circumference larger than the corresponding part of the opposite limb. The tumor was soft and elastic, occupying the situations of both condyles of the femur, but being more especially prominent in that of the outer condyle. The head of the tibia and the patella did not seem to be implicated in the disease, and the joint retained nearly its natural degree of mobility. * * *

The limb was amputated on the 6th of July, 1829.

"On examining the amputated limb, the femur was found to terminate abruptly about five inches above the knee-joint. In place of the condyles and lower part of the shaft of that bone, there was a large tumor, of an irregular form, of that structure to which the name of fungus hæmatodes is commonly applied. The cartilage which had covered the surface of the condyles of the femur was seen expanded over the lower part of the tumor, being everywhere thinner than natural, but nowhere in a state of ulceration. In some parts it had contracted adhesions to the cartilage covering the head of the tibia.

"In other parts the tumor was covered by some thin remains of the periosteum, and a layer of thickened cellular membrane." (P. 286.)

The chapter *on some other Diseases of the Joints* has, as we have before said, undergone great alteration. In the former edition, the first two of these which were mentioned were abscess and exfoliation of the articulating extremities of the bones: in the present they are placed on a much more scientific footing, being treated of as acute and chronic inflammation of the epiphyses, the acute terminating in exfoliation of the bone, and the complete destruction of the joint; the chronic producing enlargement of the epiphysis, and, in more severe cases, occasioning the formation of abscess in the centre of the bone. In the former there is no remedy but amputation; in the latter, where there is only enlargement, sarsaparilla, mercury, iodine, and mezereon, with the application of blisters, will be found useful. When abscess in the bone takes place the pain is intensely severe, and formerly such cases were condemned to amputation; but Mr. Brodie has revived an operation of Mr. Hey's, and employed it with success in several instances. He trephines the bone, opens the abscess, and gives exit to the matter. The difference between Mr. Hey's and Mr. Brodie's operation is this, that Mr. Hey only applied it to such abscesses as had already burst, and found an external opening. Mr. Brodie has recognized the symptoms of this disease at its commencement, and, by practising the operation at an early period, has saved his patients many months (perhaps years) of intense suffering. The particulars of the operation, and several cases in which it was performed, may be found in a paper, by our author, in the seventeenth volume of the Medico-Chirurgical Transactions.

Mr. Brodie has enlarged upon the treatment of hysterical affections of the joints, and he recommends the usual routine of remedies which our empirical practice in this species of disease has for a long time, though very unsatisfactorily, led us to adopt. The following directions are not sufficiently attended to in general, and we therefore avail ourselves of the opportunity of quoting Mr. Brodie's high authority on these points. After recommending various medicines, he says,

"But none of these remedies will do for the patient what may be accomplished by other means. Her attention should be as much as possible withdrawn from the subject of her complaints, and directed to other objects. She should be encouraged to take exercise out of doors, especially on horseback; to rise early, so that only a moderate number of hours may be passed in bed; to live in a cheerful society, and if she has abandoned them (which has too frequently happened,) to resume, in all respects, the habits of a healthy person." (P. 304.)

Mr. Brodie notices another circumstance in connexion with the diagnosis of the disease of the hip-joint which is not generally known, viz. that, independently of disease, the two lower extremities are not always of the same length. The following passage, containing his experience on this subject, must conclude our quotations, and our notice of his work.

"It occasionally happens that the two lower extremities are not of precisely the same length; and this may be the result of original formation, the femur and tibia of one side being respectively longer than those of the other side. If the whole of this difference amounts, as it sometimes does, to an inch, or an inch and a half, the individual is observed to limp in walking, and the great trochanter belonging to the longer limb is higher and more prominent than that of the other; and this might lead a superficial observer to mistake the case for one of diseased hip.

"In some instances there is a difference in the length of the two lower limbs, in consequence of disease. A diseased bone for the most part does not keep pace in its growth with the other parts of the body; but I have known the reverse of this to happen, of which the following is a remarkable instance:

"Case lxxix. Master M. was brought to me for my opinion, in June, 1832. I saw him in consultation with Dr. Lefevre, physician to the British Embassy at St. Petersburgh.

"The cicatrices of three or four abscesses were seen in the skin on the anterior and upper part of the thigh, and there was considerable thickening of the deep seated soft parts in the same situation, there being also a manifest adhesion of them to the bone. The appearance of the limb was such as would lead to the belief that there was a portion of diseased or dead bone of the femur, with probably some new bone formed round it; and that this had produced a succession of abscesses of the soft parts, as in ordinary cases of necrosis. The history of the case seemed to justify this opinion as to the nature of the disease.

"Three years and a half ago the little boy had been suddenly seized with severe pain, which was referred to the knee, but only for a few hours, at the end of which time it shifted its place to the upper and anterior part of the thigh. The pain continued, and swelling immediately took place. At the end of six months an abscess was opened, which however soon healed. Afterwards a second abscess formed, which was followed by others; but all of them had healed without any exfoliation having hitherto taken place.

"There was some degree of stiffness of the hip-joint, but no more than might be reasonably attributed to the thickening and swelling of the soft parts in the neighbourhood. But the most remarkable circumstance in the case was, that the diseased thigh-bone, when measured from the anterior spinous process of the ilium to the patella, was found to be at least an inch and a quarter longer than that of the sound limb. The measurement was made repeatedly and with the greatest care, so that there could be no mistake respecting it. There was no perceptible difference in the length of the bones of the two legs.

"In consequence of one limb being thus longer than the other, when the patient stood erect, with the soles of his feet planted on the ground, the great trochanter on the side of the disease appeared to project unnaturally, and this occasioned a manifest alteration in the form of the nates, somewhat corresponding to what is observed in the less advanced stage of disease of the hip-joint. That this appearance of the nates was to be attributed solely to the difference in the length of the two limbs was proved by this circumstance, that it was at once removed by placing a book an inch and a quarter in thickness under the foot of the sound limb, so as to raise that side of the pelvis to the same level with the other." (P. 212.)

Our readers may now form some opinion of the excellence of the late additions to Mr. Brodie's book: they may perceive that they are characterized by the same accuracy of observation, and fidelity of description, which distinguish all his writings. But, in endeavouring to estimate the merits of the whole volume in its present complete form, it should be borne in mind, that there are two orders of works in medical science of equal value. The one establishes general principles as a foundation for future investigation; the other raises the superstructure by the accumulation of details; the former would be useless without the latter, and the latter unsafe without the former:

"alterius sic
Altera poscit opem res, et conjurat amicè."

The former may claim the palm for the brilliancy and grandeur of its discoveries; but the latter has an undoubted precedence in practical utility. The names of Harvey, of Hunter, and of Bichat, may command our reverence for their successful interrogation of nature; but those of Sydenham, of Pott, and of Astley Cooper, have an equal title to our respect as benefactors of mankind. To these latter posterity will add the name of Mr. Brodie, recognizing in his works the vivid descriptions of Sydenham, the sound judgment of Pott, and the extensive experience of Cooper.

Chemistry, Meteorology, and the Function of Digestion, considered with reference to Natural Theology. By William Prout, m.d., f.r.s., Fellow of the Royal College of Physicians.—London, 1834. 8vo. pp. 564.

One of the most favourite topics of professed grumblers is the slender encouragement given to literature. Observe, cry the croakers, how a manufacturer of carpets or candelabras rolls in wealth, and a plodding attorney is perfect in the art of transmuting parchment into gold, while a Milton is rewarded for a "Paradise Lost" with ten pounds. Now, among other important differences between the material products of the loom or workshop, and the airy creations of genius, there is one which the pessimists seem to have forgotten. The former depend entirely on patronage; the supply, as the economists say, is proportioned to the demand; and if the ever increasing luxury of the age should require an army of attornies instead of a few regiments, they could be produced with the facility, and almost with the rapidity of mushrooms. The products of genius, on the contrary, it is equally difficult to stifle by indifference, or to encourage by rewards: a Tasso or a Milton wrote for immortality, undismayed by poverty and neglect; while, in our own days, we have known an epic poem to run through twenty title-pages in a twelvemonth, and be lauded in every newspaper from Inverness to Dover, though no artifice could prolong its existence for ten years. Pensions and prizes seem to us eminently calculated to depress literature, and as unsuitable to the true genius as the pendulous abdomen of an alderman would be to a pugilist. Among the disadvantages entailed upon the prize and pension system, (the hothouse for forcing geniuses,) there is one too glaring to be overlooked. The author, instead of writing from his own heart, and imparting to us the rich overflowings of his fancy, is perpetually cribbed and confined by the painful consciousness that he is writing for a coterie of patrons; and the consequence is, that a prize essay may be recognized by its lugubrious stiffness, as different from the flow of a genuine book as a court-lady of the eighteenth century, in hoop, wig, and powder, was from a Greek nymph, "a daughter of ægis-bearing Jove."

Now we apprehend that it was with the intention of demonstrating this great literary truth that the Earl of Bridgewater left his eccentric legacy. To make the matter as plain as possible, he set his legatees to write against Paley, one of the clearest heads who have ever adorned the English church. The great author of the Natural Theology was writing on a favourite subject, and at his leisure; he had the lucid, vigorous and argumentative style of a man of brilliant talents long practised in composition, while his playfulness (unlike the caustic sarcasms of sterner writers,) lends an unexpected charm to the subject, like the lambent flame flickering around the temples of the young Ascanius,—irradiating without consuming. Such a contest can end only in one manner, yet glory may be obtained even by the vanquished; and, if Paley could witness the strife, he might say of each learned legatee, with the sturdy Ajax, in the Metamorphoses, *si non vincet, mecum certâsse feretur.*

As this article must necessarily be confined within very scanty limits, we shall pass over the first book, on Chemistry, which is certainly inferior to the other two, and content ourselves with a few extracts from the treatises on Meteorology and Digestion. The following passage is a good specimen of Dr. Prout's clear and simple style:

"*Of the Propagation of Heat and Light below the Earth's Surface in Water.* Water is a very imperfect conductor of heat in the usual acceptation of the term. Thus, almost any degree of heat may be applied, for a considerable time, to the upper surface of a mass of water, without materially influencing the temperature below; so imperfectly and slowly is heat conducted through this fluid. The process by which heat is communicated through water we have termed convection. When heat is applied to the bottom of a vessel full of this fluid, the portion of the water first heated expands in bulk, and thus becomes specifically lighter; it then rises to the top, carrying with it the newly acquired temperature, while another cold portion, sinking to the bottom, is heated in turn, and so on, till the whole mass becomes uniformly heated.

"With respect to the propagation of light through water, it has been calculated that not a tenth part of the incident light can advance five fathoms downwards in the most translucent water; that even of vertical rays one half is lost in the first seventeen feet, and that they become reduced to one fourth by traversing thirty-four feet, which correspond to the mass of an atmosphere. It thus follows, that only the hundred thousandth part of the vertical rays can penetrate below forty-seven fathoms; which is scarcely equal to the glimmer of twilight; and that the depths of the ocean must be always in perpetual darkness.*

"Such are the general principles by which heat and light are propagated in water. But, in speaking of this fluid, in a former chapter, we alluded to one of the physical properties of water, of the utmost importance in the economy of nature, and which, perhaps, almost more than anything else, indicates design; since, like the composition of the atmosphere, this property of water constitutes an exception, as it were, to a general law, expressly directed to a particular object. We have mentioned that it is a general law, that all bodies, in every state of aggregation, expand by heat and contract by cold; now water forms a marked exception to this law. Like other bodies, water continues to contract on the removal of heat, till its temperature comes down to within a certain distance (7° or 8°) from its freezing point. At this distance water begins again to expand, and the expansion continues till it becomes ice; at which moment of freezing, a sudden and considerable expansion takes place. Hence, the specific gravity of ice is decidedly less than that of water, and the solid necessarily swims on the surface of the fluid. The importance of this anomalous property of water is so great, that it is doubtful whether the present order of nature could have existed without it, even although everything else in the world had remained the same. For instance, were it not for the comparative lightness of ice, this solid, instead of beginning to be formed at the surface of water, would have begun to be formed at the bottom; as the colder water from its greater specific gravity would naturally have sunk: for similar reasons, also, the lowest stratum of ice would have been the last to have melted. Now, let us reflect for a moment upon the consequences of such an arrangement. In the northern, and indeed even in temperate climates, the bottoms of all lakes and deep waters would have been a mass of ice, and totally inaccessible, therefore, to organized beings. During the summer a few feet of the upper part of the ice would, perhaps, have been melted; but what little had thus become melted in summer would again have become solid during winter, and, as the accumulations of ice would have been constant, all the seas, even perhaps to the tropical climates, at least at their bottom, would, long before this time, have been a mass of ice! But what in reality happens? In consequence of the above anomalous properties of water this mischief is entirely prevented, and not a particle of ice can be formed in a lake, or other collection of water, till the whole mass is cooled down to the temperature of 40°, at which temperature the specific gravity of water is at its maximum.

"These properties of water operate in the following manner. On the application of cold to the surface of water, the cooled portion sinks, and its descent forces up a portion of warmer water to the surface, which, after communicating some of its heat to the superincumbent air, sinks in its turn; and this process goes on for a greater or less time, according to the depth of the water. If the depth be not very considerable, the whole body of the water becomes cooled down to 40°; at which temperature the specific gravity not increasing, the circulation ceases, and the *surface* of the water, not the *bottom*, becomes at length so far cooled as to be covered with ice. If the depth of the water be considerable, the application of cold may be long continued without the result of freezing: hence, in this and in other countries not intensely cold, it often happens that deep lakes remain unfrozen during the coldest winters." (P. 246.)

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* "Article 'Climate,' in the Encyclopædia Britannica."

Though we agree with our author in his admiration of this curious provision for preventing the rapid freezing of water, still we cannot allow that, were water destitute of this property, the evil consequences which he supposes must necessarily arise. There are generally half a dozen ways of solving a mathematical problem, and are we to suppose that the Architect of the Universe has but one?

Perhaps, on the whole, the third part of this work, in which Dr. Prout treats of the function of Digestion, is the most interesting. He observes, that oil, sugar, and albumen, are the three great principles of which all organized bodies are essentially constituted; and, though some animals can live for a short time on one alone, yet, for perfect nutrition, a combination of two, if not of all three principles, is absolutely required. Now milk contains all three, and all the most subtle refinements of cookery can produce nothing but disguised imitations of this "great alimentary prototype." The operations of the stomach, according to Dr. Prout, are three.

The first consists in reducing the food to a semifluid state. "This operation seems to be altogether chemical, and is probably effected by *reducing* the properties of these alimentary substances." (P. 488.) Dr. Prout has previously explained the sense in which he uses *reduction:* he means the conversion of a strong into a weak substance; and by a strong compound he means " that its constituent supermolecules are, like those of strong cane-sugar, less complicated than the supermolecules of a *weak* principle, like those of the sugar of honey." (P. 487.)

Secondly. The stomach can change one of the simple alimentary principles into another.

Thirdly. It has the power, within certain limits, of *organizing* and *vitalizing* alimentary substances. "It is impossible to imagine that this organizing agency of the stomach can be chemical; this agency is *vital*, and its nature is completely unknown." (P. 489.)

In his account of the reducing powers of the stomach, our author says, "Regarding the intimate nature of the agency by which the combination of alimentary substances with water is effected in the stomach, we cannot be said to possess much certain knowledge. This combination appears to be chiefly owing to the agency of a fluid secreted by the stomach, the glands for the formation of which fluid are most numerous toward the pyloric orifice. The aliment having been previously broken down by mastication, and having received an admixture of saliva and of other fluids, is brought into contact with the fluid secreted by the stomach; by which secretion, or by some other energy there in operation, the food that has been introduced into the stomach is associated with water, and thus becomes itself more or less a fluid. Of this important secretion of the stomach, chlorine, in some state or other of combination, is an ingredient—it would seem a necessary ingredient; for the secretion, in its healthy state, always contains more or less of chlorine, the powerful influence of which elementary principle seems mainly to contribute towards effecting the union of the food with water. The chlorine, thus so indispensable to the reducing process, is perhaps more frequently the subject of derangement than anything concerned with the assimilation of the food. It often happens that, instead of chlorine, or a little free muriatic acid, a large quantity of free muriatic acid is elicited; which not only gives rise to much secondary uneasiness, but more or less retards the process of reduction itself. The source of this chlorine or muriatic acid must be the common salt which exists in the blood; to suppose that it is generated, is quite an unnecessary hypothesis. The chlorine is therefore secreted from the blood; and it may be demanded, what is the nature of the agency capable of separating that element from a fluid so heterogeneous as the blood? We are acquainted with one agent that exerts such a power, namely, electricity; and this agent, as we formerly observed, seems to be employed by the animal economy for its operations, in the same manner, and on the same principles, as the materials themselves are employed from which the animal body is constructed. Perhaps, therefore, the decomposition of the salt of the blood may be fairly referred to the immediate agency of this principle, electricity. But here the question arises, what becomes of the soda from which the muriatic acid has been disunited? The soda remains behind, of course, in the blood, and a portion of it, no doubt, is requisite to preserve the weak alkaline condition essential to the fluidity of the blood. But the larger part of this soda is probably directed to the liver, and is elicited with the bile in the duodenum, where it is thus again brought into union with the acid that had been separated from the blood by the stomach. These observations, illustrating the importance of common salt in the animal economy, seem to explain in a satisfactory manner that instinctive craving after this substance which is shewn by all animals.

"Admitting that the decomposition of the salt of the blood is owing to the immediate agency of galvanism, we have, in the principal digestive organs, a kind of galvanic apparatus, of which the mucous membrane of the stomach, and perhaps that of the intestinal canal generally, may be considered as the acid or positive pole; while the hepatic system may, on the same view, be considered as the alkaline or negative pole. Whether such galvanic action be admitted or not, (and the admission is of no very great importance,) what we have above stated may be received as a simple expression of the facts, in so far as they relate to the saline constituents of the blood. Moreover, be the nature of the energies what they may by which these changes are effected, along with these changes, and probably by the aid of the same energies, other very important changes or processes are carried on, to some of which we shall presently have occasion to allude. In the mean time we may close this section by observing, that there is strong reason to believe that the solvent power, which we have described, or some power having a great resemblance to it, exists not only in the stomach, but in every part of an animal body. In all animals there are minute tubes, called absorbents, which originate in every part of their bodies, and, at length uniting, enter the sanguiferous system along with the chyle. Now, the office of these tubes is to remove all those portions of the animal frame which, after having performed their several functions, require to be withdrawn. Of course, before solid parts can be thus removed, they must be dissolved, (*digested*, in fact;) and such solution, in many instances, is probably effected as it is in digestion, by combining these solid parts with water. This supposed analogy between the solvent powers of the stomach and those which must prevail all over the body seems to be strongly confirmed by that similarity of structure and of function existing between the lacteals and the absorbents: they indeed form but one system." (P. 494.)

We agree with our author in supposing that the food becomes a semifluid from its admixture with the gastric juice and saliva; but surely this is inconsistent with his previous supposition, that it depends on the *reduction* of the alimentary substances.

We trust that we shall be acquitted of everything like disrespect towards one of the master-spirits in our profession, when we confess that this work has disappointed us. Our expectations may have been unreasonable, but our author's genius had given them birth; and we are dissatisfied, not because the treatise is defective in matter or manner, but because it wants the author's private mark—the stamp of originality. Yet perhaps several of the observations on digestion may be exempted even from this mitigated censure; and, though this work has some of the diagnostic signs of a bespoken book, it is still the book of Dr. Prout: as Longinus observes, that though the Odyssey bears the marks of old age, it is the old age of Homer.

Cours Théorique et Pratique d'Accouchemens. Par J. CAPURON, Docteur en Médecine de la Faculté de Paris, Professeur de l'Art des Accouchemens et des Maladies des Femmes et des Enfans, &c. *Sixième Edition.*—Bruxelles, 1832. 8vo. pp. 252.

THIS work is divided into three parts: the first treats of the anatomy and physiology of the female organs of generation, in their unimpregnated and impregnated state; the second, of natural labour; and the third of preternatural labour, including those cases which require only the assistance of the hand, as well as those which demand the use of instruments.

A French *Cours d'Accouchemens* is generally less comprehensive than an English System of Midwifery. Among our continental neighbours the obstetric art is considered merely as a branch of operative surgery, and treated of apart from the diseases of the reproductive organs, and those consequent on pregnancy and parturition: we doubt, however, whether such insulation be favourable to the progress of the science, since many of the most important and difficult questions which present themselves to the accoucheur are essentially connected with the consideration of disease. The evidences of pregnancy, for example, in a healthy woman, are usually sufficiently unequivocal; but this state is liable to be complicated with diseases which render its diagnosis extremely obscure, and there are also diseases which simulate pregnancy so closely, that all the science and assiduity of an experienced practitioner is requisite for their discrimination. In treating of this question, M. Capuron gives an excellent view of the ordinary means of ascertaining whether a woman be with child or not; but he makes only very casual allusion to the several morbid states, which may render the problem of difficult solution. Our author's remarks on this subject will, however, be read with considerable advantage.

In reviewing the diagnostic signs of pregnancy, he expresses himself with more diffidence of their validity than is usual with obstetrical writers; not, however, with more than the experience of practitioners, if candidly stated, will amply warrant.

> "None but an experienced and intelligent accoucheur is capable of separating truth from falsehood in an inquiry where self-deception is so easy; he alone can distinguish the probable, equivocal, or uncertain signs from those which are true, characteristic, and infallible, and thus pronounce an irrevocable decision. In general, whenever the movements of the fœtus cannot be detected, we must be content to remain in doubt till time clears up the difficulty. But it may happen that the obscurity is not dispelled

till a very late period, not even till that of actual delivery. We could not have believed this, had we not been witness to the following fact:

"A woman was received at the Hôpital de la Charité, declaring herself to be dropsical. Corvisart examined her, and thought that he perceived a small fœtus towards the left flank: this induced him to believe that the patient laboured under an encysted dropsy complicated with extra-uterine pregnancy. Baudelocque, being requested to visit this woman, examined her per vaginam, and assured us that the appearance of pregnancy was caused by an enormous scirrhus of the uterus. What happens? Fifteen days or three weeks after, the woman is naturally delivered of a very large child, full of vigour and health. What a surprise for the clinical professor! what a warning for the celebrated accoucheur! what a lesson for the pupils! Thenceforth we learned never to decide, under similar circumstances, till we had attained complete certainty of the existence of a fœtus in the womb. By such circumspection alone can we guard ourselves against error, and avoid these stupid mistakes, which tend to the disgrace of the art, to the dishonour of the practitioner, to the injury of the woman, and almost always to the destruction of her offspring. But how are the motions of the fœtus to be excited? This is, perhaps, the most embarrassing part of the subject, at least to those who are only commencing the practice of manual examination. The following, however, are the precepts given for the diminution of the difficulty, if indeed any precepts can supply the want of experience in an art which is only to be acquired by practice. The uterus is to be alternately elevated and depressed, by the application of one hand to the surface of the abdomen, while the index-finger of the other is introduced into the vagina. By this procedure a shock is communicated to the fœtus, which is first carried to the fundus of the uterus, and then suffered to fall towards the neck of this viscus, and made to impinge on the finger, which is kept immoveable in its situation: this precaution is necessary to avoid confounding the passive motion of the fœtus with that of the entire uterus. The percussion felt is stronger in proportion as pregnancy is further advanced, since the product of conception is then more fully developed. In the latter months, the fœtus, when raised, returns quickly upon the finger, and affords unequivocal signs of its presence. Sometimes, also, in carrying the hand over the surface of the abdomen, or applying the finger to the segment of the uterus corresponding to the vagina, we are fortunate enough to excite the active or muscular motion of the fœtus, and then no doubt remains of its being alive." (P. 52.)

M. Capuron is not sanguine in his expectations of the aid to be derived from auscultation in the detection of pregnancy.

"Of late," says our author, "physicians have maintained that the stethoscope of Laennec may serve for the detection of pregnancy, when the fact is doubtful. According to them, this instrument, applied to the hypogastrium of the pregnant woman, transmits distinctly to the ear of the inquirer the sound of the circulation both in the placenta and the fœtal heart. But if there be cases in which this species of auscultation is infallible, how many are there also in which it is fallacious and useless! In proof of this, we appeal to the testimony of enlightened accoucheurs who have made repeated experiments on this subject. If they are candid, they will acknowledge that the wooden cylinder never deserves the preference over the touch of an experienced finger. For our own part, observation has convinced us that the stethoscopic diagnosis of pregnancy stands on the same ground with that of thoracic diseases; and we can assure the reader, without fear of being confuted, that its utility has been exaggerated in both instances." (P. 50.)

On this subject we may safely say, that when the pulsations of the fœtal heart can be distinctly heard, they afford a very unequivocal indication of pregnancy, inasmuch as the sound is of a kind little liable to be mistaken; but we should be extremely sorry to declare that a woman was not with child merely because they could not be heard.

With regard to the placental sound we hardly know what to say; but we will not pronounce it inaudible, because we wot of a man who heard a mouse trotting on the top of a high tower when the said deponent was at the bottom; and moreover, the limits of possibility seem to be daily extending, so that we have quite given up disbelieving, as unphilosophical and Judaical withal.

The directions for the conduct of labour, whether natural or otherwise, are copious, and for the most part excellent. In treating of the former, however, we do not think our author has insisted sufficiently on attention to the state of the bladder. Every experienced accoucheur is aware that this organ sometimes becomes dangerously distended during labour, without the patient being herself conscious of it; attendants also are liable to be deceived by mistaking the discharge of the liquor amnii for that of urine; and, in the advanced stage of labour, a vast quantity of urine is often accumulated in the bladder in a very short space of time, offering an impediment to the descent of the child's head, which is certain to increase the pain, and protract the duration of labour, to say nothing of the danger of irreparable mischief to the bladder itself. We have witnessed a case in which the urine had been freely passed till within a few hours of delivery, and in which the patient did not complain of any uneasiness from its retention: this patient fell a victim to peritoneal inflammation, and on dissection it was found that the bladder had given way at its upper part, and allowed the urine to escape into the cavity of the abdomen.

It cannot be too strongly impressed on the mind of the practitioner, that he ought never to trust, in a matter so important, to the account given by the patient, or her attendants, but should insist on seeing the quantity of urine passed, and examine, from time to time, the state of the bladder, through the parietes of the abdomen and vagina, when, if there be the smallest reason to suspect that the bladder is distended, the introduction of the catheter should be urged, notwithstanding the frequent repugnance of the patient to this operation. We may add, that the accoucheur should never go to a case of labour unprovided with a flexible gum catheter of a small calibre; since, when the cavity of the pelvis is fully occupied by the fœtal head, the introduction of the metallic instrument will often be found difficult and painful, and sometimes impracticable.

In his directions for the management of hemorrhage, M. Capuron makes no mention of the secale cornutum as a means of arresting it, or of the transfusion of blood, with a view to repair the waste of the vital fluid. The former omission is, we think, no great loss; but the subject of transfusion is one of considerable importance, and ought not to have been overlooked in a practical treatise on midwifery.

Our author makes but a brief allusion to the use of the secale cornutum in cases of deficient uterine action, and recommends it chiefly on the authority of others.

> "Dr. Villeneuve, one of our estimable and modest colleagues, has published an excellent memoir on this substance, in which he has proved historically that it has been administered with success in six hundred out of seven hundred and twenty cases of parturition. But what other therapeutical agent could cite more, or even an equal number of chances in its favour? There is then nothing to prevent its employment, or, at least, a trial of its powers. The memoir just mentioned may be consulted for the preparations, doses, and modes of administration. The conditions necessary for its application will also be found there; they are the same, with reference both to the mother and child, as those which obtain in natural labour. From which it results, that the spurred rye is an excitant which should only be used to restore the languid or suspended pains of labour, when the uterus, from its inactivity, is inadequate to the expulsion of the fœtus." (P. 101.)

Whether the ergot possesses the power over the uterus which many attribute to it, is a question which we must leave to the decision of those who have had larger experience of the matter than we can pretend to: in prosecuting the inquiry, however, the maxim of Lord Bacon should not be lost sight of, "Is humano intellectui error est proprius et perpetuus, ut magis moveatur et excitetur affirmativis quam negativis."

Admitting, however, that the remedy possesses all the virtues which its advocates claim for it, we do not think it can ever be of very extensive use in the practice of midwifery. If labour be protracted merely from insufficient activity of the uterus, we should in most cases be disposed to advocate the cause of patience *versus* the ergot; if, on the other hand, an impediment arise from even the smallest disproportion between the dimensions of the head and those of the pelvis, we cannot conceive anything more dangerous than the administration of this medicine, since it is obvious that, by increasing the expulsive efforts without diminishing the obstacle to be overcome, it is quite as likely to rupture the uterus as to expel the child: and why, in such a case, should we have recourse to a doubtful or dangerous auxiliary, when we possess one which is both safe and certain, in that old-fashioned but very useful instrument, the forceps?

Nevertheless, as M. Capuron observes, where there is mere deficiency of uterine contraction, there is no objection to the use of the ergot; and it is worth while to try it on a large scale, in order to ascertain whether it really possess the alleged property.

The following observations on *puerperal convulsions* will be read with interest.

"When a woman in labour is affected with convulsions, our first care should be to discover their cause, and to obviate it, if possible. If they be connected with a state of plethora, if there be pain and sense of weight in the head, somnolency, vertigo, tinnitus aurium, the appearance of excitement, and sparkling of the eyes, blood-letting is indispensable, to prevent engorgement of the brain, and compression of the origin of the nerves. But what vein ought to be opened in such a case? The abstraction of blood from the foot has been recommended, but it has not been as successful as that from the neck, or the arm. If the convulsions arise from irritation of the primæ viæ, if there be pain above the eyebrows, with nausea and bitter taste in the mouth, if the tongue be foul and red, and the epigastrium painful, recourse must be had to antiphlogistic remedies, such as local bleeding, and water, either pure, or slightly emulsionated.* If the patient be of a highly nervous temperament, subject to hysteria, or any other spasmodic affection, antispasmodics are to be administered, such as baths, orange-flower water in a large dose, the mineral anodyne liquor of

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* *L'eau émulsionnée* means distilled water impregnated with the four cool seeds.

Hoffman, camphor, musk, assafœtida, ether, some preparations of opium, &c. We have twice attended a lady who was afflicted during labour with violent convulsions; she was no sooner immersed in tepid water than she was delivered as if by enchantment. The moral emotions which have been known to occasion convulsions demand bodily repose, tranquillity of mind, and abstraction from the causes of mental excitement. The state of debility arising from excessive hemorrhage requires restoratives, and analeptics, strong broths, and even some spoonfuls of old wine. If the neck of the uterus, from being either too rigid or too irritable, offers undue resistance, and causes the commotion of the nervous system, we must endeavour to relax it, and diminish its sensibility, by exposing it to the vapour of warm water, or placing the patient in a hip-bath, or injecting emollient enemata through the vagina. If, notwithstanding all these means, the orifice of the uterus refuses to yield, and presents a hard, tense, and callous margin, as if in a state of scirrhus, its division becomes necessary under pain of compromising the life of the woman. Dubosc, professor in the surgical college of Toulouse, relates that he was able, by this alternative alone, to save a woman who had become pregnant for the first time and at an advanced age. A few minutes after the section of the cervix uteri, the convulsions ceased, and the labour terminated spontaneously. Such a procedure, far from being blamable, ought, on the contrary, to be imitated under similar circumstances. Finally, when the dilatation of the uterine orifice has been effected spontaneously, or by the division of the cervix, if the labour be still too long protracted, we must lend a helping hand to nature. We must commence by rupturing the membranes, which alone is sometimes sufficient to allay the convulsions; for, by thus diminishing the volume of the uterus, its fibres are relaxed, its sensibility and irritability diminished; and the determination of blood to the head is obviated, by partly removing the impediment to its free circulation through the vessels of the abdomen. But, should the convulsions still continue, notwithstanding the evacuation of the amniotic fluid, we have no resource left but in the complete extraction of the fœtus." (P. 144.)

We are much surprised that M. Capuron does not recommend *venesection* in the rigid state of the os uteri above alluded to. He must surely be aware of the fact, that an os uteri which feels as hard as a board will often, after a copious bleeding, become as pliable as could possibly be wished. In some obstinate cases of this kind it is necessary to abstract a very large quantity of blood: this remedy, however, if used with sufficient vigour, is almost always effectual; and venesection, even to fifty ounces, is far preferable to so truculent a proceeding as slitting the cervix uteri, an operation which we can hardly conceive to be ever necessary, except in those deplorable, but fortunately rare cases, in which conception has taken place when the os uteri was affected with real scirrhus.

When speaking of compound pregnancy as a cause of manual interference, our author cites several ancient authorities with a gravity that is rather amusing; among others, that of Ambroise Paré, who relates that a woman brought forth twenty children at two deliveries. The credibility of this venerable surgeon on such matters may be estimated from the cases he has recorded of certain ladies, who, having been on rather too easy terms with the devil, or some of his satellites, became gravid by their good offices, and were, in due season, brought to bed of old clouts, hobnails, wood, stones, and a variety of heterogeneous and anormal products.* M. Capuron, however, judiciously concludes, that it is extremely rare for a woman to give birth even to three or four children at a time.

The portion of this work devoted to manual and instrumental labour is, in general, admirable. In considering the various irregular positions of the fœtus, the author has shown his good sense in discarding the frivolous minutiæ of classification in which continental writers have frequently indulged, and which only tend to burden the memory and bewilder the faculties of the student.

From this commendation we would except only the directions given for embryotomy. We wonder much that M. Capuron should inculcate the use of the *crotchet* in this operation, without so much as mentioning the forceps, which, in this country at least, are now very generally, and most advantageously substituted for it. The crotchet is an implement to which we can apply no other term than *detestable :* it is clumsy, of difficult application, often altogether insufficient for the desired end, and always fraught with infinite danger to the mother; while the embryotomy forceps, especially as improved by Drs. D. Davis and Conquest, are of more easy application, of more certain efficiency, and, if properly applied, perfectly safe to the parturient woman.

The reader may perhaps think that a work by so justly celebrated a practitioner as M. Capuron, on so important a branch of medical science, ought to have been the subject of a more extended notice than we have here given to it; but the fact is, that mere midwifery, disjoined from pathology, involves only subjects, on the greater part of which there can now scarcely be two opinions.

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* Works, lib. xxv. c. 16. Johnson's Translation.

As a guide to the accoucheur in the mechanical department of his profession, this work will be found of great utility; but we will not deny that we think it much inferior, as a system of obstetrics, to those of several of our own countrymen, who have considered the mechanical details of the art in closer connexion with those pathological views from which they will be found inseparable in practice.

The Edinburgh Medical and Surgical Journal, Nos. CXVIII. *and* CXIX. *January and April,* 1834.

We return with pleasure to the pages of our able contemporary; for we feel assured that few things can be more instructive or more interesting than original papers, when condensation has added brevity to their other merits.

Dr. Wm. Turnbull has given his second *Medico-Chirurgical Report of the Huddersfield Infirmary,* from which we made an extract in the Collectanea of our last number. After narrating some cases of cholera, which seem to favour the theory of the contagionists, Dr. Turnbull gives the following account of the ravages committed by scarlatina in 1832.

" On the cessation of cholera, scarlet fever made its appearance. One of the first cases I met with was one of Scarlatina anginosa, in a little boy of my own, which was ushered in by convulsions. It occurred in the end of September. Subsequently the disease became very general, and in its most malignant form. Great numbers of children, and some adults, were cut off, more especially to the south of Huddersfield, in and near Almondbury. Delirium set in almost from the first; the heat was irregularly distributed; the eruption indistinct; the pulse rapid and feeble; and the throat speedily became gangrenous. Generally, also, the neck was greatly swollen. In the majority of the fatal cases death happened on the fifth day, in not a few on the fourth, and in some still earlier. I knew of one instance of a servant girl, eighteen years of age, in a family which had previously lost by the malady one of its members, to whom the girl was much attached, who began to complain on the Sunday evening, had a slight show of the eruption on the Monday, and died early on the Tuesday morning; the duration of her illness having been less than thirty-six hours.

" When the disease commenced with such intensity, remedial means proved of little avail. In some cases, however, ammonia, quinine, wine, and the warm bath, appeared to be beneficial, and to abate the extreme restlessness which characterized most of the cases; but, on the whole, the results of treatment were far from satisfactory. November was the most fatal month, and onwards to January many continued to sink." (P. 5.)

The whole report does the author great credit. Were such accounts of hospital practice common, we might prophesy a speedy progress of the art of medicine.

Mr. Marshall has a sensible paper on *the Abuse of Spirituous Liquors among the Troops in India.* We deem it needless to quote from it, as the absurdity of making arrack a part of the soldier's rations is too obvious to need any comment.

Mr. Poole gives an account of an *Epidemic Gastric Fever which prevailed in the Limerick Garrison during the Months of May, June, and July,* 1833.

> "Diarrhœa invariably ushered in the complaint, and frequently reappeared during its course; but the bowels were at other times slow, and required to be unloaded. Every medicine in this way, however, required to be of the mildest nature, as even the gentlest laxative produced often violent effects. The fecal discharges were varied; in some they appeared wholly serous or mucous; in others natural, but liquid. Various intermixtures of colouring matter were frequent: in some blood, in others bile, and, in a case of the 83d regiment, what might be termed melæna. In this case large quantities of calomel and Cayenne pepper had been given by a practitioner in the country, who, fortunately for the patient, considered his case bad enough to have him removed to headquarters. Griping was a frequent attendant, but tenesmus was not observed. Vomiting of bilious-looking matter occurred in one case; but the stomach was generally retentive, though nausea was by no means unfrequent. Complete anorexia existed for many days. The patients obstinately refused to eat anything, appearing to loath the sight of food, or the idea of using it." (P. 36.)

The treatment employed consisted chiefly in the use of leeches, counter-irritants, hyoscyamus, and the acetate of morphia. Every patient recovered.

There are some valuable observations in Dr. Churchill's *Report of Diseases occurring at the Wellesley Dispensary for Lying-in Women, and Diseases of Females, during the Year* 1832. Dr. C. thinks the nitrate of silver injection the best remedy we possess in vaginal leucorrhœa, but he says that in uterine leucorrhœa astringent injections almost invariably aggravate the disease. The following practical remarks are well worthy of attention:

> "In several patients who suffered much, the dysmenorrhœa proved no bar to conception, contrary to the general statements of authors.

"The first object in the treatment of amenorrhœa was, of course, to produce or recall the discharge: in some we were successful, in others we failed. In addition to the cases related by Dr. Bardsley, of Manchester, of the beneficial effects of strychnine, I have to record one to whom I gave it in doses of one twelfth of a grain, increasing to one eighth three times a day. In the course of a week the discharge appeared, having been absent ten months previously. It has since recurred naturally. In most cases there were symptoms present which precluded the use of this remedy. We tried aloes alone, and in combination with assafœtida, very extensively, and with great benefit. The menses often returned under its exhibition; and, when they did not, the general health was improved.

"The various preparations of iron were administered, and often with good effect.

"Some cases, however, resisted every remedy that was tried.

"The dysmenorrhœa was much relieved by the use of opium in grain-doses an hour or two before the expected attack, and during the paroxysm. The addition of two or three grains of camphor is often useful.

"I found opium in large doses an excellent medicine in hemorrhagia. It often stops, or at least diminishes the discharge, and is not attended with any inconvenience. Preparations of iron were of use, and frequently a blister to the loins." (P. 45.)

The next paper, which is by Dr. JAMES HENRY, is a curious instance of the varied lights which a man of talent can throw on the smallest subject; and, though we are far from admitting all the author's theories, we cannot but admire the ingenuity which dictated them. Dr. Henry administers sulphate of magnesia, with a large addition of sulphuric acid. His directions are as follows:

"Saturate any quantity of cold water with sulphate of magnesia; filter through paper, and add to every seven ounces of the solution one ounce of the dilute sulphuric acid of the Dublin or Edinburgh Pharmacopœias.

"Dose: one table-spoonful in a wine-glass of water.*

"In those cases in which the bowels are very easily moved, a single table-spoonful is sufficient to produce a considerable purgative effect.

"In ordinary cases, a table-spoonful, taken an hour or two before breakfast, produces one or two evacuations immediately after breakfast.

"In other cases the dose is to be repeated once or twice, at intervals of two or three hours, according to circumstances.

"Where the symptoms are urgent, a table-spoonful may be given every hour until the effect is produced; and, where the urgency is extreme, a saturated solution of the salt, containing only one half of the above-mentioned quantity of acid, may be given in doses of two table-spoonfuls, repeated every hour." (P. 48.)

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* "Each table-spoonful contains about two drachms of sulphate of magnesia, and half a drachm of dilute sulphuric acid."

Our readers will recollect, that the dilute sulphuric acid of the Dublin and Edinburgh Pharmacopœias is stronger than the London formula of the same name, in the proportion of four to three. Each dose, therefore, of Dr. Henry's favourite aperient contains *m.* xl. of the Acid. Sulph. dil. of the London Pharmacopœia; and this enormous quantity must, in most cases, be doubled or tripled before the bowels can be effectually moved. Surely a man may wish to give or take a decent dose of some efficient purgative, without desiring at the same time to acidify or be acidified at this rate. Then there is another obvious inconvenience in introducing sulphate of magnesia to such bad company: "The frequently-repeated contact of the acid saline solution being injurious to the teeth, it is useful to adopt the precaution of taking the medicine through a quill, or from the spout of a small teapot, whenever it is necessary to continue its use for any length of time." (P. 50, *note.*) Dr. Henry, however, nothing daunted, sees sixteen advantages in this method of giving Epsom salts, but we must be satisfied with citing seven.

"1. It is an effectual purgative, never failing to move the bowels in all cases in which the bowels can be moved by medicine. I am not acquainted with any purgative which is more certainly effectual.

"2. It is quick in its operation; the effect being produced in ordinary cases within two or three hours after the first or second dose, and a necessity rarely arising for the continuance of the medicine beyond the third dose.

"3. It is safe, never purging so as to produce exhaustion.

"4. It does not give rise to the slightest degree of nausea, but, on the contrary,

"5. Quickly puts a stop to nausea, and appeases irritability of the stomach.

"6. Flatulence, that most distressing attendant upon constipated bowels, is immediately and signally relieved by this medicine, which not only promotes the expulsion of the flatus already generated, but diminishes the tendency to its further secretion.

"7. In a few minutes after this medicine has been swallowed, so agreeable a sensation of warmth is felt in the stomach, that the medicine is not only readily taken, but even relished, by many persons whose stomach will not retain any other liquid purgative, unless impregnated with the hottest aromatic tinctures." (P. 49.)

After panegyrizing his acid physic, the author attacks the ordinary ways of taking Epsom salts, namely, in plain water, or in infusion of roses, or in infusion of senna; but we cannot afford to quote any more from a short article, and must hasten on to other matter.

Dr. J. Smith has contributed thirty-six cases of *Insanity*, terminating fatally, with the post-mortem appearances. They show, as the author observes, "that insanity is always connected with some morbid action going on in the brain, its membranes, or the skull, producing eventually, in almost every case, some distinct lesion in one or other of those parts." (P. 384.) These lesions, however, in their turn, become direct causes of insanity; or, in other words, functional leads to organic disease; and, *vice versâ*, where the latter exists, the function of the part cannot be healthily performed. We would suggest to Dr. Smith to throw the principal results of these thirty-six examinations into a tabular form, as it is difficult to read, and impossible to remember, so many cases.

Dr. Craigie's *Clinical Report* is instructive, but, as it would be in vain to attempt an analysis of more than a hundred closely printed pages, we shall content ourselves with a single quotation.

"*Hydatids.*—The existence of the genuine hydatid is not so frequent as is represented by many pathologists, who have too often, in the case of the ovary especially, confounded with this body common cysts containing limpid serum. Of the genuine hydatid, of the family Cestoidei, one example only occurred this season; but it was highly characteristic and unequivocal. It occurred in the person of Isabella Allan, the patient whom I have already mentioned as exhibiting a perfect specimen of concentric hypertrophy of the left ventricle of the heart, and whom I shall have occasion to mention as an instance of disease of the glandular tissue of the kidney. At the inferior surface of the liver, imbedded in the substance of the left lobe, was a large, rather irregular, elastic tumor, inclosed in an exterior cyst. When this was divided, it was found to contain a quantity of limpid serous fluid; and adherent to its internal surface was a cluster of about seventy or eighty membranous cysts, of a flattened spheroidal shape, with semitransparent coats, and containing limpid serous fluid. These presented the other characters of the echinococcus of Zeder and Rudolphi.

"The convex surface of the liver adhered to the diaphragm firmly and extensively by a considerable quantity of albuminous exudation, effused in columns and shreds, of some standing.

"The peritoneal cavity contained about four pounds of serous fluid. The intestines were much distended by air; and the peritoneal covering adhered in various parts to each other by means of lymph, partly recent, partly of old formation; and these adhesions were most frequent among the pelvic viscera, and on the ascending arch of the colon, the peritoneal covering of which also adhered to the abdominal peritoneum, and to several of the convolutions of the small intestines by lymph of recent formation. On dividing the upper part of the rectum, a considerable quantity of purulent fluid escaped, and was found to proceed from a cyst formed by adhesions between the anterior part of the rectum and the superior and posterior part of the uterus and ligamenta lata.

"The course of the gastro-colic omentum was occupied by a pretty firm albuminous exudation, which gave it considerable thickness." (P. 119.)

Dr. SPITTAL has taken the trouble to go through some of the more noted works on the *Diseases of the Heart,* and has given a table of the cases in which a diagnosis was attempted: this he has done with a view of ascertaining whether auscultation is capable of deciding which side of the heart is diseased. It is hardly necessary to tell our readers that cardiac auscultation is in its infancy, not to say, in an embryo state. It is not yet decided what functions the normal sounds of the heart indicate. How then shall we extricate ourselves from the labyrinth of morbid raspings and gratings? Or which of our readers will be surprised at Dr. Spittal's conclusions?

"It is quite evident, from a perusal of the table, that there is a very great want of agreement in the cases therein mentioned, between the signs afforded by auscultation and the actual condition of the heart; and a careful comparison between the first, second, and fourth columns, will show that a correspondence between the signs afforded and the morbid conditions of the heart, according to the rules laid down by Laennec, occurs only in about one fifth part of the whole; while in a large number the indications are either entirely or in part erroneous, incomplete, or altogether absent: and, to show how little such indications are to be trusted, even in the hands of the eminent individuals whose works we have consulted, it may be mentioned, that of the eighteen cases, each of which is furnished with a diagnosis, only one fourth are, as a whole, correct. With these exceptions, almost all the rest are incomplete, and many are very erroneous.

"We have thus endeavoured to show the actual state of the evidence on the question at issue; and enough, we trust, has been advanced to induce us to pause a little before coming to join in any conclusion analogous to that so decidedly advanced by Laennec, and apparently so cordially supported by those who have followed in his steps. We do not say that such an opinion is in every case erroneous, but that exceptions to it are very numerous; and, from this fact alone, it will in all probability become of little importance; misleading the observer who puts his trust in it, should it even be proved true in some cases. It is quite impossible, however, to come to a satisfactory conclusion at present, and we fear it will remain so until a far more extensive mass of evidence on this subject shall have been accumulated." (P. 148.)

Dr. MACNISH gives a *Case of Tumour in the Region of the Liver, with Discharge of Biliary Calculi through the Parietes of the Abdomen, which terminated favourably.* The recovery of the patient was perfect, with the following exception: "For a little space around the cicatrix, which is nearly two inches below the margin of the ribs, the liver is hard, and adherent to the abdominal parietes, and feels uncomfortable on pressure; but no vestige of the pendulous tumour can be discovered." (P. 152.)

Dr. MALCOLM relates a case *illustrative of the Spontaneous Evolution of the Fœtus.* When he first saw the patient, an arm, with the shoulder, and a portion of the thorax, had already been expelled through the os externum. Dr. M. administered 150 drops of Tr. Opii, which however increased, instead of weakening, the uterine contractions. He then introduced, with difficulty, two fingers into the vagina, and

> "had the good fortune to find both feet, near the foramen externum, jammed together between the lower part of the sacrum and the external opening, in contact with the vagina. From the position of the feet, I judged that the breech was resting at the top of the sacrum, or to one side of it, and the head consequently at the anterior part of the pelvis. I gradually brought the feet forward, and was at length enabled to accomplish the delivery. The feet, breech, body, remaining arm, and lastly the head, being adapted to the pelvis, as in an ordinary footling case, without the hand of the operator being introduced, or the presenting arm returned, into the vagina; in short, without turning having been had recourse to. The perinæum, although much stretched during the delivery, remained entire." (P. 339.)

So that it was a *tertium quid,* between a case of turning and of spontaneous evolution.

Dr. JOHN DAVY has an essay on the *Maceration in Water of different Textures of the Human Body.* In an abstract of this kind it is of course impossible to give the author's experiments; it will be enough to quote his deductions from them.

> "The general conclusion which I am disposed to draw from these experiments is in opposition to the doctrine of Bichat on the subject of membranes; a doctrine, it must be confessed, which bears the impress of genius; but, I apprehend, rather a fiction of the

mind than a well-grounded theory or generalization of facts. In the present state of our knowledge, it appears to me that the doctrines of Haller, on the composition of the textures of the body, are preferable, both in relation to matter of fact and utility of application, to the more modern ones of the French school. It seems to be taken for granted in the new doctrine, that continuity of surface is necessarily accompanied with identity of structure. If the doctrine be correct, this dogma may be admitted; but if the latter is not correct, I do not know how the doctrine itself can maintain its ground. And it appears to me that facts have been advanced in this paper not reconcileable with this dogma. Compare the effects of maceration on the textures of the different passages or canals communicating with the open air; or compare the effects of this process on different parts of the surface of the same canal, and certainly identity of composition is not indicated, but considerable variety. Make the same kind of comparison with different parts of the cutis, and the conclusion is analogous. Far different in composition and in appearance, and in the morbid affections to which they are liable, are the cutis of the sole of the foot, the cutis of the scrotum, of the chin, and of the back." (P. 364.)

Dr. A. Murray proposes to ascertain the presence of minute portions of arsenic, by applying liquid tests to the solid poison, in the following manner:

"1. A small quantity of common arsenic was pressed into writing paper by friction with a glass rod, and upon the stain thus produced a single drop of a solution of common nitrate of silver was rubbed by means of the rod. A phial containing common hartshorn was then immersed in hot water, and over its open mouth the paper was held, (the arsenic being on the upper surface, for the sake of better observing the appearances,) when the whitish spot became in a few seconds lemon yellow. The arsenical spot being kept over the hartshorn for about half a minute more, the yellow colour entirely disappeared, but it returned when the paper was removed from the phial, and held close to the water.

"2. Upon an arsenical stain of the kind described was rubbed a drop of solution of sulphate of copper, and the paper was then held over hartshorn placed as before. Almost immediately a mixture of blue and green streaks was perceived, and in a few seconds more the spot became of a beautiful blue colour. The paper was then removed from the hartshorn, and allowed to float upon the hot water, when the blue in a few seconds was converted into a decided green." (P. 365.)

Mr. John Roberton, surgeon to the Manchester Lying-in Hospital, has contributed some useful *Remarks on the Relaxation and Descent of the Uterus and Bladder in the Puerperal State.* After narrating a number of cases, he says, "1. Descent of one or more of the pelvic viscera is not, as is commonly believed, a disease chiefly of middle or advanced life. It is true, complete prolapse, the last miserable state of the disease, is generally found in those who have passed their thirty-fifth or fortieth year; but the first stage of descent ordinarily commences early in the childbearing period of life.

"2. In a majority (perhaps I might say in a great majority) of instances, the complaint follows a first labour; and that from causes which have already been stated.

"3. When first labours are tedious, more especially when this appears to be owing, in any measure, to the great size of the child, it behoves us to be on our guard against the occurrence of the disease during the puerperal period,—that is, during the first six weeks." (P. 402.)

Mr. Roberton disapproves of astringent lotions, and recommends those afflicted with this disease in the slightest degree never to suckle longer than five or six months. We agree with the author in the latter point, as nothing can be more certainly destructive of a weak constitution than the long and draining sucklings which we so often see among the poor; but we should reluctantly give up the use of astringent injections, as we believe them to be not only useful, but immediately and powerfully so.

Several other articles contain matter worthy of being transferred to our pages; but we hasten to conclude this notice, lest our readers should find fault with the re-distillation of papers already subjected to an editorial alembic. Yet we would ask, what can be more useful, or more consonant with the character of a practical Journal like this, than the humble office which we have just performed, of analysing and abridging, and giving in a few pages, the pith of volumes?

The Anatomy and Physiology of the Liver. By Francis Kiernan, Esq., m.r.c.s. [From the *Philosophical Transactions.*]—London, 1833. 4to. pp. 60.

The minute anatomy of morbid structures has of late years been prosecuted with great assiduity. While we do not agree with those who think such researches frivolous, we may be forgiven for doubting whether they will ever be productive of the practical advantages expected from them. It is much to be lamented that an equal share of attention has not been bestowed on the minute anatomy of healthy organs, from which, in our opinion, much more important results are likely to follow, since it has rarely happened that a laborious investigation of the intimate structure of any organ has not conduced, in some degree, to the elucidation of its functions. All that is most certain in physiology has been derived from this source; nor, in the conduct of such inquiries, should any peculiarity of structure, however apparently insignificant, be considered unworthy of attention. A careless anatomist, for example, in examining the valves of the veins, might content himself with looking at a few of them, and, finding them all to be merely reduplications of the internal membrane, and all nearly alike, might think their further investigation superfluous. Harvey was at the trouble of tracing them throughout, and found indeed that they were all alike in a most important particular—they all leaned the same way; and it was mainly on this fact that he built one of the most splendid discoveries ever made in science.

We have derived much pleasure and instruction from the perusal of Mr. Kiernan's paper. His anatomy of the liver is by far the most complete and satisfactory hitherto published; and, in giving to the world the results of his own observation, he has been careful to ascertain what had been done by his predecessors: a species of diligence which cannot be too much commended, and in which it were to be wished that he had more companions; the maxim "decies repetita placebit" having been rather too extensively adopted by the medical discoverers of the present day.

The substance of the liver, as is well known, consists of a congeries of small lobules; and the most interesting part of the paper before us refers to the distribution of the blood-vessels and ducts in and around these lobules: of this we shall endeavour to give a brief abstract, afterwards quoting some passages in illustration of other points in the anatomy and physiology of the organ. We may premise that, if, in so intricate an anatomical description, we should, in any instance, misconceive our author's meaning, we are, saving our infallibility, open to correction.

The vessels of the liver are—

I. The HEPATIC VEINS, which consist of

1. The *intra-lobular* hepatic veins, which are contained within the lobules: one of these occupies the centre of each lobule, and receives the blood from four or six smaller branches which terminate in it. The intra-lobular veins correspond in their ramifications with the form of the lobules whose substance is placed around them; and, as will presently be shown, they receive the blood from a plexus formed in the lobule by the *portal vein.*

2. Hepatic veins, which are contained in *canals* formed by the lobules: these, for the sake of perspicuity, we shall call

canalicular veins. The formation of the canals differs according to the relation of the contained vessel to the intra-lobular veins: where the intra-lobular terminate directly in the canalicular vein, the canal of the latter is necessarily formed by the bases of the lobules resting upon it, and the contained vein is termed *sublobular;* where the canalicular vein is not formed immediately by the intra-lobular, but by the junction of several other canalicular veins, the canal containing it is formed by a tubular inflection of the surface of the liver; so that, in the one case the canals are formed by the continuity of the *bases* of the lobules, and in the other, by the continuity of those surfaces which will be presently described as *capsular*.

II. The PORTAL VEINS, HEPATIC DUCTS, and HEPATIC ARTERIES, which must be described together, because they accompany each other throughout their course, being all contained in the *portal canals*. These canals begin at the transverse fissure, where they are continuous with the concave surface of the liver; and, like those of the larger hepatic veins, they are formed by the *capsular* surfaces of a certain number of the lobules.

To understand the distribution of the vessels contained in these canals, we must trace the course of *Glisson's capsule*. The liver is invested by a membrane, which stands related to it much as the pia mater does to the brain: it is a cellulo-vascular membrane, which is reflected inwards at the transverse fissure, and encloses in a sheath the portal veins, the hepatic arteries, the ducts, the nerves, and the absorbents: it is here that it is called the capsule of Glisson, in the ordinary language of anatomists. A continuation of this membranous sheath accompanies the contained vessels to their minutest ramifications; it enters the interlobular fissures, and, with the vessels, forms the *capsules* of the lobules; it finally enters the lobules, and, with the blood-vessels, expands itself over the secreting biliary ducts. Hence arises a natural division of the capsule into three portions—a *vaginal*, an *inter-lobular*, and a *lobular* portion.

At the transverse fissure, the duct, vein, and artery, divide into branches which enter the *portal canals*, invested with the above-described membrane, the membrane lining the canals and enclosing the vessels. These branches, again, divide and subdivide into smaller branches, which enter smaller canals, and every canal, however small, contains one principal branch of each of these vessels; frequently, however, two ducts and two arteries are contained in the same canal.

To the larger vessels the terms *hepatic ducts, portal veins,* and *hepatic arteries,* may be restricted, in order to distinguish them from the branches. The excreting ducts are composed of the hepatic ducts contained in the canals, of their vaginal branches, also contained in canals, and of the interlobular branches, which, arising from the vaginal branches, ramify in the interlobular fissures. The interlobular ducts enter the lobules, in which they form plexuses: these plexuses may be called the *lobular-biliary,* or secreting biliary plexuses, the ducts composing them being the secreting organs of the bile. The excreting ducts and their branches are invariably accompanied by the arteries and portal veins, and their branches, the former conveying blood to their coats, the latter conveying it from them. A duct is never unaccompanied by an artery and a vein, the vein being always a branch of the portal. The veins and arteries also enter the lobules: the veins form plexuses, the branches of which terminate in the intra-lobular hepatic veins; and from the blood circulating through these plexuses the bile is secreted. The lobular arteries are exceedingly minute, and few in number: they are the nutrient vessels of the lobules, and probably terminate in the plexuses formed by the portal vein. From the ducts, veins, and arteries, therefore, three sets of branches arise, namely, the *vaginal,* the *interlobular,* and the *lobular* branches.

Such is the best account we are able to give of the distribution of the vessels of the liver, according to Mr. Kiernan. We fear that the want of engravings may prevent our description from being as perspicuous as we could wish; but we shall not attempt to illustrate the matter further, since, as Hudibras sagely observes,

> "brevity is very good,
> When w' are, or are not, understood."

Want of space obliges us to omit many of the able anatomical descriptions with which Mr. Kiernan's paper abounds: we subjoin, however, a few extracts, chiefly with the view of inducing the reader to peruse the entire memoir, which will not fail to reward him amply for his trouble.

In the following passage our author explains the manner in which the veins of the liver inosculate with each other.

"Ramifying in fissures which are continuous with each other throughout the whole liver, the interlobular branches of the portal vein anastomose freely with each other, enveloping every lobule in a venous web: the intralobular branches of the hepatic veins, on the contrary, confined within the lobules, have no direct communication with the corresponding branches of the surrounding lobules, from which they are separated by the substance of these bodies, and by the intervening interlobular ducts, veins and arteries, situated in the interlobular fissures; and one intralobular vein can be injected from another only through the medium of the intervening portal veins. When injected with mercury or size, the intralobular veins appear in the centres of the lobules in the form of points, stellæ, or twigs; these veins, therefore, unlike the interlobular portal veins, do not anastomose with each other. If, by means of a pipe and glass tube, mercury be thrown into a large hepatic vein on the surface of a section, it will return by several smaller neighbouring hepatic veins, which, generally, are branches descending to terminate in the larger vessel in which the pipe is fixed. If these vessels be tied, the mercury will return by large hepatic veins, situated at a distance from the injected vessel, and not branches of it. In this experiment the force used is not sufficient to propel the mercury through the intervening intralobular, lobular and interlobular veins, and by such means to form a communication between the two hepatic veins; for if force sufficient to effect this were used, the mercury would return by portal as well as by hepatic veins, which is not the case. If the inferior cava be opened at its posterior part, and if by the same means mercury be thrown into a small hepatic vein, it will immediately return to the cava by other hepatic veins, without appearing in the superficial intralobular veins, and without passing into portal veins. From these experiments, it appears that the sublobular veins anastomose with each other, and that their intralobular branches do not.

"The most superficial vessel, the intralobular branches of which are seen on the surface, should be chosen for these experiments, and, in order to ascertain that the mercury does not pass into the portal vein, a section of the liver should be made at some distance below the injected vessel. A glass tube and pipe, whereby the pressure may be graduated, should be always used in these experiments. Size injected into one hepatic vein will always, and wax will sometimes, return by other hepatic veins.

"By contrasting the hepatic veins with the portal vein, we find that no two intralobular branches of the former anastomose with each other; that the interlobular branches of the latter form one continuous plexus throughout the whole liver; that the sublobular veins anastomose directly, and not through the medium of the intralobular branches; that the portal veins have no direct communication with each other, but anastomose by means of their interlobular branches; that the hepatic veins, like the other veins of the body, proceed in a direct course to their termination in the cava; that the portal vein, accompanied by an artery, resembles an artery in its ramifications; that the larger hepatic veins, having longitudinal fibres in their coats, differ in structure from the portal vein; and that the blood contained in the liver after death is almost invariably found in the hepatic veins, the portal vein being usually empty." (P. 736.)

From the double venous circulation carried on within the liver, it results that this organ is naturally in a state of sanguineous congestion. "Hence," says our author,

"arises the great difficulty of making successful injections of the human liver: the plexuses may, however, be frequently well, but seldom equally, injected, and always with greater success from the portal, than from the hepatic vein, the latter, and those portions of the plexuses immediately surrounding its intralobular branches, generally containing whatever blood may remain in the liver after death. The plexuses may be always injected with facility from the portal or hepatic veins, and the injection will pass freely from one vein into the other without extravasation, if the liver has been previously deprived of all its blood by the ligature of the portal vein and hepatic artery in the living animal. Anatomists have considered, that the free communications which exist between the two vessels obviate the difficulty which would otherwise arise in the circulation through the liver, from the want of power consequent on the presence of the two veins; and, although the communications between these vessels appear, upon experiment, to be more free than those which exist between the hepatic artery and the portal vein, and between arteries and veins generally in other parts of the body, yet it appears that the arteries and veins in the spleen and kidney, and probably in all glands, communicate with equal freedom. The lobular venous plexus is best examined in the superficial lobules; but here again the human liver presents a difficulty, particularly in the adult, in consequence of the opacity of the proper capsule: the liver of the cat, and that of the smaller animals generally, appear to have no cellular capsule, and are consequently more favorable for this purpose.

"The venous plexus ramifies on the biliary plexus: the blood circulating through it is composed of the portal blood, and certainly of that portion of the arterial blood which, having nourished the excreting ducts and supplied them with mucus, and having circulated through the vasa vasorum of all the vessels, becomes venous, and is received into the branches of the portal vein, by which, with the portal blood, it is conveyed to the plexus; and from this mixed blood the bile is secreted." (P. 745)

Anatomists have long described two distinct substances in the liver, one red, and the other yellow: Mr. Kiernan, however, denies the validity of this distinction, affirming that the substances are essentially the same, and that the red colour is produced merely by congestion. After a full detail of the opinions of preceding anatomists, he continues,

"My attention was first directed to the anatomy of the liver by the study of the admirable works of M. Andral. In the first organs I examined, I found the small branches of the hepatic veins ramifying exclusively in the red, and those of the portal vein in the yellow substance. I concluded that the liver was composed of two venous trees, a portal and an hepatic tree, the former having a cortex of yellow, the latter of red substance; and with M. Boulland I thought it probable that the red substance was the organ of the function imagined by Bichat. I next ascertained the lobular structure, and concluded with Ferrein that the red substance was medullary, and the yellow cortical. Subsequent dissections, in which I found branches of both the portal and hepatic veins ramifying in the red substance, tended to unsettle the opinions I had formed respecting the anatomy and physiology of the two substances; and these opinions were finally overturned by the examination of a liver in which I found the branches of the portal vein alone ramifying in the red, and those of the hepatic veins in the yellow substance. The only conclusion that could be drawn was, that the red colour resulted from congestion; that it was medullary, occupying the centre of each lobule, when the hepatic, and cortical, forming the circumference, when the portal vein was congested. It occurred to me that the kidneys of birds having, like the liver, a double venous circulation, were equally subject to congestion, and would, like it, present an appearance of two substances. Dissection verified this conjecture; but the apparently two substances are red, one, however, being of a much deeper colour than the other. I have satisfied myself by repeated injections, by examination with the microscope, and by experiments on living animals, that the lobules are of the same structure throughout; that one portion of a lobule is not more vascular than another; that the acini of Malpighi, by contrast with the congested vessels, are even more apparent in the red than in the yellow substance; and that these supposed two substances are consequently identical in structure. That secreting biliary ducts are contained in the red as well as in the yellow substance, is proved by the relation given by M. Andral of a case of jaundice with 'coloration insolite du foie.' 'Foie volumineux, pesant, très-dur, se déchirant difficilement, offrant une teinte générale d'un brun verdâtre. En l'examinant avec plus d'attention, on trouve que cette teinte n'est pas uniforme, et que le parenchyme du foie est formé, 1°. par un tissu d'un blanc verdâtre, disposé sous forme de lignes ou de plaques irregulières (c'est le tissu blanc ordinaire hypertrophié); 2°. par un tissu d'un vert brun foncé, duquel dépend la coleur générale que présente le foie, et qui est l'analogue du tissu rouge ordinaire.' This was a case of vitiated biliary secretion, with general biliary and partial sanguineous congestion. The ordinarily yellow substance was of a greenish white colour, being congested with greenish bile only; the ordinarily red substance was of a deep brownish green, this colour evidently resulting from biliary and sanguineous congestion combined. I have met with more than one case of this kind; I have also seen cases of jaundice in which there was no biliary congestion of the liver, and the highest state of biliary congestion without jaundice. In attempting to estimate the causes of the various shades of colour observed in the liver, it is not sufficient to examine the cystic bile alone; the hepatic bile should be also examined; and it will be generally found, as in the above case, that these shades of colour depend either on biliary or sanguineous congestion alone, or on the various combinations of both." (P. 752.)

The following are our author's conclusions with respect to the function exercised by the liver.

"The physiological deductions arising out of the preceding anatomical facts are extremely simple. If it could be shown that two substances exist in the liver, it might be fairly presumed that this organ executes two functions; but each lobule being, in itself, a perfect gland, and of the same structure throughout, each lobule, and consequently the whole liver, executes but one function, the secretion of bile.

"It has been shown that all the vasa vasorum of the liver are branches of the hepatic artery and portal vein; that branches of the portal vein arise in the coats of the hepatic veins themselves; and that the veins of the coats of the vessels constitute the hepatic origin of the portal vein. The arterial blood having circulated through the coats of the vessels, becomes venous, and is conveyed by the veins arising in the coats of the vessels into those branches of the portal vein which correspond to the vessels in the coats of which the veins, arise: thus, from the coats of the vaginal ducts, veins, and arteries, they convey the blood into the vaginal veins; and from the coats of the interlobular ducts, veins and arteries, into the interlobular veins. From the coats of the hepatic veins and inferior cava, the blood is conveyed into the interlobular portal veins. In the vaginal and interlobular veins, the blood conveyed from the coats of the vessels becomes mingled with the proper portal blood. This mixed blood is conveyed by the interlobular veins into the lobular venous plexuses, in which the lobular arteries probably terminat after having nourished the secreting ducts. From the mixed blood circulating through the plexuses, the bile is secreted by the lobular or secreting biliary plexuses.

"The blood which enters the liver by the hepatic artery fulfils three functions: it nourishes the liver; it supplies the excreting ducts with mucus; and, having performed these purposes, it becomes venous, enters the branches of the portal vein, and contributes to the secretion of the bile. The portal vein fulfils two functions; it conveys the blood from the artery, and the mixed blood to the coats of the excreting ducts. It has been called the vena arteriosa, because it ramifies like an artery, and conveys blood for secretion; but it is an arterial vein in another sense, being a vein to the hepatic artery, and an artery to the hepatic vein. The hepatic veins convey the blood from the lobular venous plexuses into the vena cava inferior." (P. 754.)

The paper concludes with some remarks on the opinion of those physiologists who hold that the bile is secreted by the hepatic artery, and an account of an interesting dissection which the author had an opportunity of making, of a child in which Mr. Abernethy found the portal vein terminating in the inferior cava. On this head, however, we must refer the reader to the paper itself; in concluding our notice of which, we have only to regret that our own limits, and the nature of the subject, have not allowed us to do justice to its merits. It is a learned, concise, and well-digested memoir, replete with original observation, and is in all respects highly creditable to Mr. Kiernan's abilities both as an anatomist and a writer.

The work is illustrated with some neat engravings, from drawings by the author, by the aid of which the anatomical details, though necessarily minute and intricate, are for the most part rendered perfectly intelligible.

On the Ulcerative Process in Joints. By C. Aston Key, Surgeon of Guy's Hospital. [*Medico-Chirurgical Transactions*, Vol. xviii. Part i.]

A Practical Treatise on Diseases of the Joints. By W. J. Wickham, Surgeon to the County Hospital, Winchester.—Winchester, 1833. 8vo. pp. 178; two Plates.

Although we acknowledge the wisdom of regarding science as of no country, and the philosopher as a citizen only of the world, yet we confess that we are not so thoroughly imbued with this spirit of literary cosmopolitanism as to follow with equal interest native and foreign investigations. On the contrary, we dwell with peculiar pleasure on those subjects to the elucidation of which British talent and industry have principally contributed. Amongst such as appertain to our profession, the diseases of the joints stand, "if not first, in the very first line," as originally classified by a British surgeon, and as owing every subsequent improvement, both in their pathology and treatment, (except in one instance, the use of moxa,) to British observation and experience. But it not unfrequently happens, when any pursuit has been attended by extraordinary success, that a crowd of adventurers are tempted into the same field, under the impression that their labours will be similarly rewarded; forgetting, however, that a rich harvest temporarily exhausts the soil, and that the succeeding crops (if any be obtained,) must be proportionably scanty. The same pains which, on subjects so disadvantageously situated, have yielded no returns, if expended on others hitherto untried, might, and most probably would, have been rewarded by highly valuable practical discoveries.

These observations appear to us peculiarly applicable to the works under review. The ingenuity and talent with which Mr. Key has always prosecuted his inquiries have never been so unsuccessful as in the present instance; and the persevering assiduity and zeal, of which Mr. Wickham's book affords internal evidence, could on very few subjects have been so sparingly recompensed. The errors into which these gentlemen have fallen are of a very opposite character. Mr. Wickham has detailed the result of fifteen years' experience; and, if a book on the treatment of diseases of the joints were required, the fidelity and industry with which his treatise has been executed would entitle it to the attention of the profession: but, as every surgeon is, or ought to be, provided with Mr. Brodie's work, which contains all that is valuable in Mr. Wickham's, its publication cannot be regarded as contributing to the advancement of science, though it may fulfil the author's other intention, by affording the governors of the Winchester hospital a proof of his zeal. On the other hand, Mr. Key, in his search after novelty, has indulged in speculations (to say the best of them) of very questionable value, and has supported them by a train of desultory reasoning, which it is difficult to comprehend, and much more so to analyse or abridge. We shall, however, make the attempt; and, if unable to follow him through the whole labyrinth of his theories, we may select a few passages that may serve as a specimen of his style and arguments.

It is the principal object of Mr. Key's paper to demonstrate that ulceration of cartilage is not effected by the agency of its own vessels, but that it is accomplished by the blood-vessels of the surrounding parts; that the process is modified by the cause which occasions it; that, when it arises from inflammation of the synovial membrane, a highly vascular false membrane is formed for the purpose of removing the cartilage; when from wounds of the joints, the absorption is accomplished by means of the vessels of the opposite synovial surface; and, lastly, when commencing in disease of the bone, certain vascular granulations spring up from the cancellous structure, which act on the cartilage in contact with them.

Now, it is no new theory that cartilage is destroyed by the vessels of the parts with which it is connected, but various arguments have been adduced in opposition to it: 1st, the known vascularity of cartilage during infancy; 2d, vessels are occasionally found ramifying through it during the progress of disease; 3dly, it is evidently endowed with a power of repairing the effects of the friction to which it is constantly exposed; and, lastly, it sometimes undergoes a morbid change of structure, which can only be effected by the absorption of the old and the deposition of new materials. These objections have been hitherto considered sufficient to overthrow the theory of the extrinsic absorption of cartilage; and it was therefore incumbent on Mr. Key, when attempting its revival, to commence by replying to them; but, so far is this from the course which he has pursued, that he has not even noticed their existence. We cannot, indeed, account for the author's silence on these points, since they are detailed at length by Mr. Brodie. There is, however, one novelty in Mr. Key's hypothesis,—that ulceration, whether in joints or elsewhere, is not effected by means of the absorbents, but by the extreme branches of the venous system, and he states the following as the grounds of his opinion: 1st, parts are disposed to ulcerate in proportion as they are well supplied with blood; 2dly, where absorption is going on there is always a corresponding increase of vascularity; and, 3dly, those structures in which but few vessels exist are intermingled, during the ulcerative process, with a vascular structure. The first is illustrated by the frequency of ulceration in inflamed mucous membranes; the second by the changes which take place during the ulceration of serous membranes; and the third is exemplified in the absorption of ligamentous fibre, which he thus describes:

> "The ligament, instead of preserving its usual form and size, becomes distended and feels pulpy. When cut into, the fibres are found to be separated from each other by a vascular structure, which upon being injected has a villous appearance. This interstitial vascular mass is the reticular membrane that, in the healthy structure, unites the ligamentous fibres; under inflammation it becomes highly vascular, and assumes the appearance alluded to, while the fibres of the ligament retain their natural glistening appearance until, in the progress of the disease, they at length become softened and pulpy previously to their undergoing absorption. It is not improbable that the ligamentous fibres themselves are passive in the ulcerative process, which there is some reason for believing is performed entirely by the vascular tissue that surrounds them." (P. 214.)

Caution in matters of science can scarcely be too highly commended; but Mr. Key's readers would probably have pardoned him, if, after several pages of reasoning, his conclusions had been put in a rather more tangible form than that they are "not improbable," and that "there is some reason for believing" them. Nevertheless, it appears to us that Mr. Key's confidence is well proportioned to the strength of his arguments, and that he has shown the correctness of his own judgment in thus lightly estimating their force. The value of the first proposition, that there is a remarkable disposition to ulceration in those textures that are well supplied with blood, may be estimated from a very cursory examination. The choroid coat of the eye, the thyroid gland, and the spleen, are among the most vascular structures of the body, yet are they also among those least liable to ulcerate. On the other hand, if we examine what parts most readily take on this ulcerative process, we must enumerate the cornea (the least vascular tunic of the eye), the cartilages (the parts of the articulations which are most scantily supplied with blood), and the cicatrices of former sores which possess but an imperfect organization.

Mr. Key has not been more fortunate in his selection of the mucous membranes as an illustration of this position. The conjunctiva palpebralis, which is a highly vascular mucous membrane, does not by any means display this disposition to ulceration; and every surgeon must know that the mucous membrane of the urethra frequently suffers considerable violence and laceration from the unskilful use of bougies, while ulceration of this surface is comparatively of rare occurrence. It is undoubtedly true that the lining membrane of the alimentary canal is very liable to ulcerate; but this statement, considered as an argument, is open to an objection which Mr. Key has foreseen, and to which he has endeavoured to reply in the following passage:

> "The action of the veins in producing ulceration of a villous surface, as that of the intestinal canal, is by no means rendered improbable by the membrane being abundantly furnished with absorbents. Gendrin mentions that in those who have died with ulceration of the intestine, he has usually found the veins either filled with pus, or inflamed upon their inner surface. The same author relates an experiment of injecting pus into the pleural cavity of an animal, and at the expiration of twenty-four hours finding, on dissection, a considerable quantity of the fluid in the branches of the thoracic veins. Other observations might be adduced in support of the opinion that the function of the absorbents is confined to nutrition, to the removal of interstitial fluids, and to the preservation of the form of the body during growth, or, as Mr. Hunter has termed it, modelling absorption; and that progressive absorption or ulceration is effected through the agency of the extreme branches of the venous system." (P. 211.)

No expressions could possibly indicate a greater degree of doubt than those with which he commences; yet, within ten lines, this doubt has risen to an opinion, not simply, that veins may absorb, but that the whole ulcerative process is effected through their agency; and, when we examine the arguments that have had so much power on Mr. Key's mind, our surprise at their effect is rather augmented than diminished: for, though pus has been found in the veins, it is, according to our author's own statement, not always there; hence the action of the veins and the ulcerative process cannot be connected as cause and effect. Besides, pus has not unfrequently been found in the absorbents; a fact which strongly militates against the theory that they are only concerned in modelling absorption. The "other observations" to which Mr. Key alludes are, we presume, to be found in a note containing an experiment, which we subjoin.

"Professor Coleman, of the Veterinary College, at my request, made the following experiment. He caused to be inserted in the inner part of the thighs of an ass a rowel, which, at the expiration of four days, had established a copious suppuration. On the fourth day a small quantity of prussiate of potass was inserted in each sore, and allowed to remain six hours, at the end of which period the animal was killed. To ascertain which of the two systems, the venous and the absorbent, had taken up most of the *salt*, I removed some blood from the iliac veins on both sides, and some from the mesenteric veins; and Mr. Coleman's dissector collected half an ounce of fluid from the thoracic duct. These I submitted to Mr. Alfred Taylor, our lecturer on medical jurisprudence and chemistry, who favoured me with the following analysis. 'No. 1, the blood from the iliac veins, contains the prussiate in large proportion. No. 2, the serum from the thoracic duct contains it in about the ratio of $\frac{1}{50}$ of No. 1; and No. 3, the blood from the mesenteric veins, after standing six days, shews evidence of the prussiate in the ratio of about $\frac{1}{50}$ of No. 2, and therefore, of about $\frac{1}{2500}$ of No. 1." (P. 212, *note.*)

It is generally believed that the absorbents communicate with the veins during their whole course; but we need not remind so excellent an anatomist as Mr. Key, that there is a distinct absorbent trunk opening into the iliac vein. The presence, therefore, of the prussiate of potass in these veins demonstrates nothing, since it might have found admission by this absorbent vessel; and the minuteness of the portion found in the mesenteric veins only corroborates what might have been anticipated, viz. that a part of the salt had been eliminated during the progress of the blood through the body. Thus, all that this experiment can be said to prove decisively is, that the absorption is partially, if not wholly, carried on by the absorbents,—the very conclusion which it is intended to controvert. By a very slight modification of the same line of argument, we might expose the futility of Mr. Key's next position, viz. that "all structures, previously to being removed by ulceration, become unusually vascular, as if a more complete development of the sanguineous tissue were essential to this mode of absorption," and reduce it to its old-fashioned form, that ulceration is one of the sequelæ of inflammation.

Ere we quit this part of our subject, let us be careful not to be misunderstood. We do not mean to deny the action of the veins in absorption; we mean only to dispute the sweeping proposition of Mr. Key, that ulceration is effected through their agency alone, and to show that the arguments which he employs are not entitled to the importance which he attaches to them, while he totally neglects to notice others which lie on the surface, but which militate against his opinion. What can be more striking than the phenomena attendant on the absorption of certain poisons?—syphilis, for instance. It has never fallen to our lot to witness inflammation of the veins of the penis from the irritation occasioned by the passage of the virus: but a chancre and a bubo have been almost as closely associated in our mind as a sound with its echo; and we should as soon have dreamed of doubting the connexion between the former as between the latter.

We now follow Mr. Key to his exposition of the doctrine of passive absorption of cartilage; and his reasoning upon this subject is, if possible, more inconclusive than on the former.

Having stated the appearances presented during the absorption of ligamentous fibre, which we have before quoted, and which we may now paraphrase into a form under which our readers may perhaps recognise an old acquaintance, viz. that when any part, consisting of two different structures, is inflamed, that structure which is most vascular in health will be the most injected during disease:—having stated this, Mr. Key proceeds to describe the absorption of dead bone in necrosis, and to draw an analogy between this process and that of the absorption of cartilage. Now, had Mr. Key been satisfied with informing us, that "the dead bone, having no power of self-removal, the surrounding parts are called upon to perform the office of removing the useless mass," none of his readers could have accused him of a taste for innovation, and we for our parts should have so far assented to its truth as to rank it amongst self-evident truisms; but, when our author proceeds to argue that, because dead bone cannot perform any vital action, therefore it is probable that such vital actions cannot be performed by living cartilage, far from being able to trace an analogy, we rather recognise an antithesis, of circumstances.

We turn, however, with no small degree of pleasure from Mr. Key theoretical to Mr. Key practical; and we wish that we were able to devote a larger portion of our review to this part of the subject. His descriptions of the appearances presented in post-mortem examinations of diseased joints are extremely vivid, and evince the hand of a master. The following passage will excuse us for quarrelling with Mr. Key's theories, since they have occupied much of his paper, and cheated us, perhaps, of many such descriptions.

"The first circumstance that strikes us, on opening a diseased joint, is, the different degrees of ulceration in the articular surfaces, and the different extent to which the interarticular cartilage and ligaments have suffered. This will depend upon the part in which the diseased action has commenced, which perhaps in most cases is determined by accident, as the seat of the blow or sprain which may have excited the inflammation, or the form of the joint producing unequal bearing upon the surfaces, and thus determining the inflammation to that part where the pressure is greatest. The inner part of the knee joint usually exhibits the most extensive ulceration on account of the oblique bearing of the femur, and its consequently unequal pressure on the inner part of the head of the tibia. We therefore find the inner semilunar cartilage more often destroyed than the outer, and a corresponding destruction of the cartilage covering the inner condyle of the femur and inner part of the head of the tibia. The patella and the extremity of the femur are the parts on which the ulcerative process can be best traced on account of the disease being in these less advanced. In the former bone the first part that commonly gives way to ulceration is the margin of the cartilage, where the synovial membrane is reflected from it. At this point sulci of different depths are formed which cannot be always distinguished, until the thickened edge of the synovial membrane is raised. The ulcerated surface sometimes exhibits parallel vascular lines verging towards the centre, and having their origin from the synovial membrane. The synovial membrane at this part, if the vessels are well filled with fine injection, appears highly vascular, and fringed or villous like a mucous membrane. This increased vascularity is particularly noticeable at the edge of the membrane, and in these portions of the fringed margin that correspond to the ulcerated surface of the cartilage; the other parts of the synovial membrane have their vascularity but slightly increased. This highly vascular fringe of membrane is a newly organized, and will be found in some parts to be a superadded, structure, for the purpose of producing ulceration of the contiguous cartilage. It may when recently formed be raised in some parts from the synovial membrane, but is found to adhere very slightly to that part of the cartilage where ulceration is going on; this adhesion is not perceived unless the joint is opened with care." (P. 222.)

In describing the progress of ulceration of the cartilage of the hip-joints, Mr. Key states his belief that it commences more frequently in the ligamentum teres than is generally supposed; but, as he gives due credit to Mr. Brodie's assertion, that it does exist as a primary disease, so far from controverting his opinion, we shall quote it, for the instruction of our readers.

"The beginning of the affection is frequently to be traced to a fall, by which the legs have been forcibly separated, and the ligamentum teres stretched. In some cases, the injury has been so considerable, as to occasion the patient to rest the limb for some days, on account of the severity of the pain. This to a certain extent subsides, and the inflammation that remains assumes the chronic form. If the patient's health is good, he recovers with only a slight temporary weakness in the joint; in the more feeble habit, with a tendency to strumous action, the disease gradually passes into the ulcerative form. Sometimes, from the tender age of the child, no cause can be assigned for the disease; perhaps, in some instances, it may have a purely constitutional origin. The motions of the joint, that give the patient most pain, are strongly indicative of the seat of the affection; in the earliest stage, before the soft parts could well be affected, if the disease commenced in the cartilage, eversion of the thigh, and abduction of the limb from the other, produce the greatest degree of suffering to the patient; while he can bear the joint to be flexed, and to be slightly inverted, without complaining. A similar indication of the ligamentum teres being inflamed, is the pain sometimes expressed on pressing the head of the femur against the acetabulum; in its healthy state the ligament, being lodged in the hollow of the acetabulum, receives but little pressure; but when it is swelled by inflammation, the cavity of the joint affords it less protection, and when pressure is made by forcing the head of the femur upwards, the ligament is compressed, and usually produces some degree of pain. The circumstance, too, of the ligamentum teres being destroyed by ulceration, when the head of the bone and acetabulum are only partially ulcerated, may be considered as presumptive proof of it being very early engaged in the disease. There are few cases of post mortem inspection of the hip-joint in an advanced stage of disease, in which the ligamentum teres is not found destroyed." (P. 231.)

We must here terminate our quotations. We could have wished that Mr. Key had more carefully revised his paper before he consented to its publication; for his arrangement might have undergone considerable improvement, and some important errors might have been corrected. He states, for example, that there are four methods in which ulceration takes place in cartilage, and details but three, substituting for the fourth an account of its conversion into a fibrous structure. He would probably, too, have thought it right to suppress certain parts, in which he expresses a most unsatisfactory degree of doubt. Thus, in a single page, we find the following hesitating expressions: "There are some circumstances that tend to throw some doubt;" "it is by no means satisfactorily ascertained;" "is still less definitively understood;" "it yet remains a problem;" and "is by no means rendered improbable:" besides one or two others, which betray but little more confidence.

In common with all our professional brethren, we feel under obligations to Mr. Key, for his ardent pursuit of science, and his readiness to communicate whatever appears to him to be important; but, we regret that a surgeon, possessing such ample opportunities of watching disease, such accuracy of observation, and such powers of description, should display so great a predilection for hypothesis. We would venture to remind Mr. Key, that the cause of science is more advanced by the publication of a single fact than by a whole volume of theory; that men of the most transcendent talent have not deemed it beneath them simply to detail what their eyes have seen and their hands have handled: and we desire to recall him to that course of strict investigation which has been consecrated by their invaluable discoveries.

We have devoted so much space to Mr. Key, that we can afford but little to Mr. Wickham; but this is of the less consequence, as he lays no claim to novelty for his opinions, and there is, consequently, no room for discussion. His arrangement of his subject is simple, and it is so far good, though he has left so many points untouched, that his work would be better named a Treatise on *some* of the Diseases of the Joints. Meanwhile he has introduced certain topics rather unnecessarily: for instance, he commences with an account of various kinds of exostoses in the vicinity of the articulations. Now, as these have no connexion with the structures of which the author professes to treat, excepting in as far as they impede their motion, he might with equal propriety have introduced an account of popliteal aneurism, or of glandular abscess in the axilla. Caries of the bones, and necrosis, are in a great measure foreign to his subject; and it appears to us that such little notice as it might be requisite to take of them would more properly have been stated in connexion with their effects on the joints. Again, the author considers the scrofulous affections of the bones, ultimately causing absorption of the cartilage, as synonymous with necrosis and caries: be this as it may, (and we are inclined to differ with Mr. Wickham,) yet the difference of treatment required ought to have secured for them a separate consideration.

In reviewing a work, it is a good practice to select a passage, in order that the reader may judge for himself of the style in which it is written; and, as we have devoted the former part of this article to the pathology of ulceration of the cartilage, we shall quote Mr. Wickham's account of the symptoms of that disease during life. It forms a good specimen of the merits of the whole work, as the author has evidently bestowed more of his attention on the means of detecting disease, and the method of curing it, than on any curious questions concerning its nature and causes.

"Primary ulceration of the cartilage is characterized by strongly marked symptoms, which differ essentially from those which accompany diseased action in other parts of the joint. They are such as satisfactorily to lead to a detection of the actual seat of the disease.

"The pain is peculiar: it is continued, and of the pricking kind. Patients describe it by saying they feel as if an animal was gnawing at the part. This pain is deep in the articulation; but there is for the most part a remote or distant pain, a dull and continued aching down the lower part of the limb. This pain, although generally extending along the whole, now and then confines itself to one particular spot. Even then the pain is the same, resembling that of rheumatism. When the cartilage of the hip joint is inflamed, the distant pain is particularly along the outer side of the thigh, knee, and legs; but it is most severe in the knee and ankle. In disease of the cartilage of the shoulder, the pain extends along the outer side of the arm to the elbow, and onwards to the two last fingers. The distant pain is generally accompanied by a slight degree of numbness, and in very irritable persons by cramps or spasmodic twitchings of the large muscles of the limb. This is a great aggravation of suffering, and renders it scarcely tolerable. The pain, both that which is in the joint and that which is at a distance, is aggravated by pressure or forcing one bone against another; and it is curious to observe, when the pain of the joint has been in less degree than the remote pain, how decidedly pressure produces the distant pain: for example, I have repeatedly found pressure on the groin revive the great suffering which the patient has been affected with in the knee, in cases of disease of the cartilage of the hip.

"*Absence of Swelling.*—In the first stages of this disease no swelling of the joint is observable. It is only when the inflammation has extended to the other textures that swelling occurs. The distinctions, then, by which disease of this structure is to be known, are the peculiarity of pain, and the absence of swelling. These are the only symptoms of the first stages of the attack, and do not vary until the inflammation has proceeded to other parts; when, however, this does take place, new symptoms arise, and are such as are attendant on disease commencing in the other textures. There is one symptom which may be perceived in the latter stages of ulceration of the cartilage, which cannot be discovered until absorption has gone to a considerable extent. I mean a grating sensation by friction of one bone against another. To detect this, it is necessary that a surgeon should be familiar with the peculiar sensation communicated, and should be able to distinguish it from that of fracture within the joint, or the crackling of certain states of bursal inflammation. Primary ulceration of the cartilage happens more frequently in subjects which partake of a scrofulous habit of body than in other constitutions. I do not mean to say that the disease is in the least degree to be identified with scrofula; but it appears most commonly in feeble and delicate constitutions, and particularly in those persons who have been subject to glandular affections of a scrofulous character. It appears commonly in children, or those about the age of puberty. It is comparatively of rare occurrence in persons in after-life. For the most part no cause can be assigned for its coming on; still it sometimes may be traced to injuries or concussions which the joint may have received, the constitution or part not having power or activity to repair the mischief. This affection is very frequently preceded by fevers, following, after the manner of abscesses, close on the convalescence from any severe febrile disorder. Debility of constitution, whether natural or induced by previous complaint, is favourable to the occurrence of this complaint. That ulceration of the cartilage appears as a constitutional affection is very manifest, from the circumstance that a disposition exists in some persons to take on this disease in several joints at the same time, without sufficient local exciting cause to bring it into action." (P. 49.)

In his treatment of this affection, Mr. Wickham agrees with every good practical surgeon, as to the importance of absolute rest. His observations on this subject are worthy of quotation.

"In all cases of diseased action going on within the articulation, but more particularly in inflammation of the cartilage, rest is to be considered the most important and efficient means of arresting its progress. It is important, because no other remedy can be serviceable without perfect quietude; and it is efficient, inasmuch as it is of itself oftentimes enough to effect a cure. It is a well known fact that an inflamed surface cannot recover itself so long as it is suffering under the continuance of an irritating cause. A wound will not be cured so long as its surface is rubbed, and the efforts at cicatrization are thereby prevented. Let us apply this reasoning to the condition of the articulating cartilage under ulceration. Every motion of one bone upon another must by friction irritate the inflamed and ulcerated cartilage, and, moreover, where a healing process has actually commenced, it is entirely undone by a single movement. It is therefore to be kept in view, that it is not only necessary to preserve the joint at rest in order to remove the irritating cause and subdue the inflammation which has begun, but also to prevent the whole respiratory process which has been in operation from being rendered fruitless. On the first appearance of symptoms, then, which indicate inflammation of the cartilage, I confine the joint to a perfect quietude by means of a pasteboard splint, and such trappings as may effectually secure the joint from motion, or from the least friction on the diseased surface. I bear in mind also, that the first act of inflammation in the cartilage is its destruction, and that it is necessary to continue the restraint until the ulcerated surface may have become healed. For want of this precaution, and the surgeon delaying his permission of motion, I have witnessed much mischief in the relapse of the case; and this especially when the patient is to be removed from the vigilant eye of the surgeon." (P. 53.)

We are not friendly to endless subdivisions of diseases; they rather confound than elucidate the subject: but Mr. Wickham appears to have fallen into the opposite error, and has not admitted even those divisions of his subject which are valuable in practice. In addition to the instance of scrofulous disease before mentioned, we observe that, under the head of acute idiopathic inflammation of the synovial membrane, he classes the rheumatic and gouty affections of the joints, without noticing the difference of treatment which they require.

If we were inclined to quarrel with Mr. Wickham, we should complain of certain rather lengthy arguments to refute errors long since abandoned. The term *spina ventosa*, with the absurd theory on which that name was founded, has long since peacefully slept with its fathers; but our author has again called it into being, apparently for no other purpose than to repeat the pleasure of destroying it.

Again, when treating of the supposed elongation of the limb in incipient disease of the hip-joint, he offers the following explanation of its cause, and then proceeds to demonstrate its correctness.

"The deception is, I conceive, produced by the position into which the limb is thrown by rigid muscular action. It will be observed that the leg is projected away from its fellow, and the toe is turned a little outwards, so that a person comparing the two legs will bring the sound towards the affected, rather than by great force and consequent pain draw the inflamed limb towards the sound one. Thus the sound leg does not traverse the median line without losing from an inch and a half to two inches of its length." (P. 157.)

Now, it has not fallen to our lot to see such a clumsy expedient put into practice; a piece of tape does away with the error, and the necessity of an explanation.

But the taste of searching out errors is as useless as it is unpleasant. The general impression which the perusal of a book leaves upon the mind is what is really valuable: our impression, then, in closing Mr. Wickham's book, is, that its author is a very sensible practitioner, who has thought much on professional subjects, and who has faithfully recorded his experience, which is valuable as additional testimony in corroboration of Mr. Brodie's statements; and though we cannot flatter him that his treatise will be generally perused while Mr. Brodie's work exists, yet it will certainly add to his reputation as a sound and scientific surgeon.

The Principles and Practice of Obstetricy, as at present taught by James Blundell, m.d., Professor of Obstetricy at Guy's Hospital. *To which are added, Notes and Illustrations, by* Thomas Castle, m.d., f.l.s.—London, 1834. 8vo. pp. 838.

Among those practical problems which are daily debated, yet never solved, there are few more difficult or more important than those which relate to the best method of acquiring the arts and sciences. It is often mooted, for instance, whether the young student should be taught to swim with bladders or without them; whether some kind instructor should ever be at hand to clear up even the shadow of a difficulty, or whether he should be compelled, as soon as possible, to rely on his own unassisted endeavours, and have success, as it were, forced upon him by the lessons which nothing can give like repeated failures. Again, it is often inquired, in our art, whether, after the inculcation of a few theoretical principles, the future physician should be told to rely on the study of nature alone, or whether he is to be perpetually referred for directions to those volumes in which the lights of medicine have recorded their experience. The greater or less value of lectures, too, may very fairly come under discussion: it is often urged against them, that the professor, after all, is merely reading a ms. book to us, and that Denman or Merriman will give us, in a less fleeting form, and for a smaller price, all that can be obtained from the first obstetrical lecturers of the day. To this it may be answered, that many, or most, branches of medicine require the auxiliary aid of drawings and preparations; that it would be infinitely difficult to drive pupils through Smellie or Denman, but that it is comparatively easy to procure their attendance at lectures by statutes for that case made and provided; and, lastly, that a really good lecturer can not only invest the darkest and dreariest parts of our art with the rich hues borrowed from learning and imagination, but can even perform the still more arduous task of adding fresh beauties to those brilliant points which would seem to defy the aid of ornament, and which often form the most disappointing portion of a course, from the exaggerated expectations which they are apt to excite. But these advantages depend on his manner, his animation, his fluency: let his words be printed, and the charm is gone; his minuteness will seem dull, his vivacity may be called petulance; we have the contortions of the Sybil without her inspiration. Discourses must be exquisite, indeed, if they can please when thus dissevered from their better half. A cast from the features of deceased beauty may attract, but who would tolerate the lifeless copy of every-day mediocrity? Hence we are surprised at the custom, which has prevailed for some years, of constantly publishing lectures in the Journals, as if they were the most essential and most agreeable part of the medical literature of the day; and therefore, although we shall notice the work before us, from our respect for Dr. Blundell's reputation as a teacher of midwifery, yet, as the book is professedly elementary, our notice will be a short one, from our respect for our readers.

Dr. Blundell gives the following account of the chief differences between the male and female pelvis.

"The differences which characterize the male or female pelvis are six, more or less considerable.

"First:—In the male there is a certain roughness and bulkiness and weight, which strikingly contrast it with the lighter and smoother and more elegant pelvis of the female. Secondly:—In the male pelvis, the ilia, or wings of the ossa innominata, are more erect; in the female more expanded. Thirdly:—in the male the brim is more rounded, though tending somewhat to an ellipse, the long diameter of which stretches from before backward; in the female, the brim, though sometimes rounded, is generally oval, and the long diameter lies between the sides. Fourthly:—Male pelvis deep; female pelvis shallow. Fifthly:—The male outlet very small; the female outlet very capacious. Sixthly:—In the male, the arch of the pubes is contracted; in the female it is capacious, to make room for the more ready passage of the head." (P. 20.)

Soemmerring, who, in his account of the measurements of the pelvis, has copied a previous writer, tells us that the great diameter of the brim of the pelvis, or, in other words, the distance between the ossa iliûm, should, in the female, be five inches and six lines; and the smaller diameter, or distance from the sacrum to the os pubis, should be four inches and eight lines: while the former diameter, in the male, is four inches and six lines, and the latter from four to five inches. (*S. Th. Soemmerring, de Corporis Humani Fabricâ*, tom. i. § 446.) It would seem doubtful, therefore, whether, in the opinion of this great anatomist, the diameter from ilium to ilium, or from sacrum to pubes, be the greater in the male.

We do not know what inches Soemmerring (or the author whom he transcribes,) employed in his measurements, which will consequently show only the relative, and not the absolute, diameters of the pelvis.

It is not surprising that the duration of pregnancy should still be a matter of dispute, as opportunities of ascertaining it with scrupulous exactness are few and far between; and writers, gratified with the cases in which it was possible to do so, have too hastily built a theory on two or three examples, and have probably sometimes elevated the exception into the rule. Dr. Blundell thinks that the most usual duration of pregnancy is thirty-nine weeks, plus one day; he says, "I was surprised to learn that, in a late investigation before the tribunal of the empire, nine months of the calendar, and forty weeks, were, by some of the witnesses, used interchangeably, as if they were commensurate periods: the error will appear on a little calculation, as the period of nine months is exactly equal to that of thirty-nine weeks, plus one day, provided of these nine months five are of thirty days only, and four of thirty-one." (P. 175.) These witnesses would certainly not have been qualified to revise a new edition of Scaliger de Emendatione Temporum; but our author has fallen into an error of the same class, as it is impossible to pick out nine consecutive months, of which five shall have thirty days, and four thirty-one. Our opinion is, that the duration of pregnancy may vary considerably; a supposition backed not only by the unfixed duration in animals, but by the analogous irregularity of the appearance and disappearance of the catamenia in women.

When will some accoucheur arise of sufficient courage to avow, that in natural labour there is nothing to be done, and that the duty assigned him of supporting the perineum is an imaginary one? And when shall we have a race of accoucheurs who will instruct their patients, that perpetual examinations are worse than useless, and that, in ordinary cases, tincture of time (as Gooch facetiously called it,) is the only remedy required? More than half our progress in knowledge consists in unlearning deeply-rooted errors: the poor wear the cast-off opinions of their betters, as well as their clothes, and the piercing cries of "Pray help me, doctor!" are in part the distant echoes of worm-eaten treatises on midwifery.

We do not think that our author will be offended with these strictures, as he has given us a beautiful panegyric on truth, couched in a loftier style than we are accustomed to see in medical writings.

> "From the most violent conflicts of opinion, truth has nothing to fear; though long to us, to her a thousand years are but as one day, a point, a nothing in the eternity of her duration. Oppressed, amongst us, beneath the chaos of human follies and errors, she must, she will emerge unhurt at last, unchangeable as her Author. By the mere force of durability, she must ultimately stand alone, solitary amid the wreck of those perishable materials, by which, for a time, she is overwhelmed—'and the ark floated in the midst of the waters.' To her, the living spirit of philosophy, immutable, immortal, infinite, eternal truth, to her, parent of all knowledge, fountain of light, to her may be addressed, without perversion or hyperbole, the sublime apostrophe of the poet,
>
> 'The stars shall fade away, the sun himself
> Grow dim with age, and nature sink in years,
> But thou shalt flourish in immortal youth,
> Unhurt.'" (P. 428.)

The operation (as it is called) of Embryotomy forms the subject of perhaps the most difficult question in the whole range of medical ethics. Is it allowable to sacrifice one life to preserve another? or, on the other hand, shall we suffer a woman to perish, when she might be saved by the extinction of the half-existence of a being yet unborn? Our readers well know that the answers to these questions depend entirely on the countries in which they are asked; and that British accoucheurs stand almost or quite alone in their readiness to perform embryotomy. We side with them in those cases where the pelvis will certainly not afford a passage to the child; but we think that the operation cannot be justified by the mere apprehension that the mother *may* sink through the protraction of the labour, or *may* be disfigured by the laceration of the parts. We therefore do not quite agree with our author when he says, "that, in British obstetricy, the life, nay, the preservation of the patient from the graver lesions of her person, is to be looked upon as paramount to every consideration relating to the fœtus; and, when these require the sacrifice, craniotomy becomes justifiable." (P. 546.)

In the section on the means of superseding the Cæsarian operation, Dr. Blundell makes a bold proposal, which will probably be carried into effect some day in these operation-seeking times, to use a phrase of Dr. Jörg, *(in diesen operationssüchtigen Zeiten.)*

"Now, is there any mode in which, when the obstruction of the pelvis is insuperable, the formation of a fœtus may be prevented? In my opinion there is: for if a woman were in that condition, in which delivery could not take place by the natural passage, provided she distrusted the circumstances in which she was placed, I would advise an incision of an inch in length in the linea alba above the symphysis pubis; I would advise, further, that the fallopian tube on either side should be drawn up to this aperture; and, lastly, I would advise, that a portion of the tube should be removed, an operation easily performed, when the woman would, for ever after, be sterile." (P. 580.)

Dr. Blundell is well known to be a zealous advocate of transfusion, and in the present lectures he has given the theory and practice of this ingenious but dangerous operation at some length. After showing that the blood of one animal may be substituted for the blood of another of the same species, while that of animals of a different species is destructive; and that blood may be transmitted through a syringe without much deterioration, our author gives the following account of the mode of performing transfusion.

"There are different ways in which transfusion may be performed; and I shall first briefly state to you the method approved now by experience, and which, perhaps, for general purposes, may at present be deemed the best. And first, then, the operation may be executed by means of a well-constructed two ounce syringe, air secure, made of brass, tinned internally, not offensive with oil, of course perfectly clean, and to be used in the following manner: One or two bystanders (males flow more copiously than females) being in readiness to supply the requisite quantity of blood, the arm of the patient should be prepared as follows: taking a scalpel, at one cut, if tolerably dexterous, you lay bare the bleeding vein, which opens on the eye under the knife, the patient being so far from suffering in this part of the operation, that frequently she is not aware that it has been done. The vessel manifesting itself, you take a short curved probe, which you slide beneath it at the lower extremity of the incision, with a well-sharpened lancet, laying open the vein to the extent of about a line, that is, one-eighth of an inch; afterwards introducing, cautiously, at this orifice, the tubule of the syringe, so as to satisfy yourselves that when you operate the entrance will be easy; at this time, perhaps, a little blood oozes out. This preparation made, you bind up the arm of the person who is to yield the supply of blood, laying open the vein in the usual manner, but making the orifice rather free. In a conical tumbler, of large diameter, the blood may be conveniently gathered; and into the syringe, previously washed and warmed by transmission of water milk-warm, the blood is to be absorbed from the point of the tumbler through the long tubule, in such manner that, although the whole of the blood is not to be taken up lest the air should be drawn in, not more than a dessert spoonful is to be allowed to accumulate at once in the bottom of the vessel; in truth, it is not in the glass, but in the barrel of the syringe that the blood should collect. This tubule should be long enough to throw the barrel of the syringe above and beyond the brim of the tumbler, so that it may be completely out of the way. That it may enter the vein more easily, the end of the tubule may be bevelled, like the tea-pot spout.

"Two ounces of blood from the arm being absorbed in this manner, holding the syringe vertically with the tubule above and the handle of the piston below, you slowly urge the piston onward, till, together with all air, about a dessert spoonful of blood has been expelled; and then closing the nozzle by the apposition of the tip of the finger, lest the piston descending by its own gravity, fresh air should be absorbed, you give the instrument the horizontal direction, and proceed to insinuate the blood into the vein. On approaching the arm of the patient perhaps you find the orifice obscured by the blood; touch the vein with a sponge, and the aperture may be seen as clearly as the letter of a book. At this time an assistant may gently press the vein, where it lies across the probe, which will intercept a further exudation, for the circulation is so low that it is easily arrested. These preliminaries premised, without trepidation, with that calm and measured movement of mind and body, the result, not of mere animal spirits, but of that confidence which arises from a mind well prepared, you proceed to deliver the blood, cautious not to interpose unnecessary delay. For this purpose, the tubule being insinuated into the vein, to the extent of half an inch towards the heart, it is your next office to infuse the blood into the vessel, and very nice and critical is this point of the operation. What the heart in women or men might bear in a state of vigour I do not know, but reduced as it is in these cases, feeble as the limb which refuses to sustain them, it cannot support a sudden influx of the blood. To infuse too slowly is an error no doubt, for, while lying in the syringe, the blood every moment is becoming more and more deteriorated; but to inject too rapidly is a still more fatal error: gorge the cardiac cavities, and the patient may perish as suddenly as if shot through the heart; it is, therefore, with moderate velocity that the blood should be infused, and most cautiously when the collapse is great. In pressing forward the piston, from moment to moment, fix your eye on the countenance, and if all is well, then proceed more boldly; but if the lip quiver, or the eyelid flicker, or if there be restlessness or vomiting, though these are not fatal symptoms, yet it is better to suspend your operation until they subside, as in the present state of our information there is good cause for alarm; and let me add, that after waiting in this manner, you must not return to the injection, until you have procured a fresh supply of blood. If the first two ounces load, it is better to wait a few minutes, say six or eight, before more is injected; but if these first two ounces are well received by the system, proceed immediately to inject other two afterwards, waiting for eight or ten minutes, till the whole have duly circulated over the body, and, in some measure, at least, have renewed its vigour; under the extremes of weakness, this caution becomes especially necessary. Sixteen ounces of blood for the female system is a large measure, eight or ten are more sparing; four or five may, in delicate cases, turn the scale in our favour. If our object is simply to save life, the smaller quantities must be injected; if to restore vigour, the larger. Whether we transfuse or not after floodings, re-action is apt to come on next day. The entrance of a single bubble of air, though not fatal, is always to be deprecated. Inflammation of the vein is a neat topic of declamation; after the danger is blown over, listen with decent attention; till then you have not time to think about it, Antipater, and the myo-machia, may cross the classical mind. If the blood dribble from the arm which supplies you, or if it be slightly coagulated, it is unsafe, if not wholly unfit, for use. Wash the syringe between each injection. Watch the arm lest it inflame afterwards. If the respiration be stopped, it is, I fear, in vain to transfuse; if respiration is at its last gasp, the hope is small, a sudden influx of two ounces would, I think, certainly destroy in these cases. Would the heart bear, at proper intervals, doses of half an ounce? If the respiration be steady, you are almost certain of success. The best syringes I know of are those of Laundy, Weiss, Reid, and Scott. Laundy's are made according to my own whim; of course I think them preferable. Transfusion from artery to vein, perhaps even from vein to vein, might be accomplished by tubule simply; could you, however, obtain readily those who would supply you in this mode, the arterial transfusion especially would require caution; if the heart were very feeble, an impetuous influx would destroy." (P. 423.)

Dr. Blundell has given a long account of what he calls Hidrotic Fever: it is a low fever occurring after parturition, and accompanied with sweats, (whence its name, from ἱδρως or ἱδρωτικος.) Our author has divided this disease into seven kinds; yet, in spite of the pains he has taken with it, we venture to prophesy, that this new malady will not be able to hold up its head among its fellow-fevers. It seems to us to want vivaciousness.

These lectures are upon the whole very good ones, and, though they cannot aspire to supersede the established text-books, will yet deserve a place in an obstetrical library. Dr. Castle has performed his task with diligence and fidelity: his notes will be useful to beginners, and show very laudable industry. Considering, however, that his preface is dated from Trinity College, Cambridge, we could have wished his Greek and Latin to have appeared in a more polished state. He might have found at least two hundred undergraduates in that learned body who would have told him that the latter half of *perinæum* is not derived from *νεω*, to accumulate, as he supposes at p. *32 (note)*, but from *νεω*, to flow; and that *ovarium* is not a *diminutive* of *ovum*, as he asserts at p. 37 *(note)*, but signifies an egg-bed, just as *rosarium* means a rose-bed. We hope that he will take these friendly hints in good part, and recollect that we expect men to return with gold from Peru, and with knowledge from Cambridge.

Der Alp, sein Wesen und seine Heilung. Eine Monographie, von Moritz Strahl, Dr. der Medizin, Chirurgie und Geburtshülfe, und Königlicher Kreis-Physikus.—Berlin, 1833.

A Treatise on the Nature and Cure of Night-mare. By Dr. Moritz Strahl.—Berlin, 1833. 8vo. pp. 253.

It is a popular opinion, that nothing qualifies a physician for treating a disease so much as the having suffered under it himself: the man who has become personally acquainted with gout or rheumatism needs no *cramming* to fix their symptoms in his memory:—"those best can paint them who have felt them most." Now, the author of the treatise before us has laboured under this painful advantage: he has been afflicted with the frightful malady which he describes, and the result has been a volume which is very creditable to him in his double capacity of a philosophic historian of the disease, and a patient investigator of its nature and symptoms.

Dr. Strahl gives the opinions of authors, from the earliest ages to the present time, on the nature and essential symptoms of incubus; and shows that most physicians have fallen into error by assuming that night-mare can only take place during sleep, and that it is always accompanied by dreams or visions; and, having demolished their theories by an appeal to facts, he proceeds to give the following definition of the disease: "Night-mare is characterized by a feeling of suffocation and oppression about the præcordia and chest, which mostly comes on during sleep; it lasts only a short time, and completely disappears after a single deep inspiration. If the attack takes place during sleep, loss of the power of speech and motion frequently occurs in addition, together with the false notion that the sense of oppression is occasioned by some foreign body." (P. 55.)

Our author remarks, that, even when digestion is perfect, various kinds of gas are developed in the alimentary canal; but, in dyspepsia attended with flatulence, much gas is disengaged, which is not only troublesome from its quantity, but injurious from its quality, and painful abdominal spasms, giddiness, fainting, &c. may arise from this source. These symptoms, however, can only be explained on the supposition that the wind (to use the popular expression) is pent up by a spasm of two different points of the alimentary canal, so that the space in which it is confined is dilated; the circulation of the blood being thus clogged, and the nerves pressed upon. That this is the fact, is shown by the removal of the unpleasant symptoms as soon as the wind is got rid of.

Now, a patient suffering from night-mare always has a weak digestion, and particularly a decided inclination to flatulence. A constriction takes place somewhere in the lower part of the alimentary canal, preventing the escape of the air downwards; the air now becomes rarefied by warmth, and the condition arises known by the name of *inflatio ventriculi*. The spasmodic attacks can easily be explained by the dilatation of a large part of the body so richly provided with nerves and blood-vessels. But this dilatation of the stomach must, in particular, prevent the free movement of the diaphragm, by pushing it upwards, and the difficulty of breathing is thus easily explained. The patients feel the necessity of taking a deep inspiration, but the attempt to do so, instead of relieving them, merely increases the distressing sensation about the præcordia: and this is quite natural; for, since the resistance of the diaphragm prevents the due expansion of the lungs, the repeated attempts at a full inspiration, instead of filling the lungs, fill the stomach. The precursory symptoms likewise admit of an easy explanation. The irritable pulse, the electric shocks, and the convulsions, arise from the tension of the nerves and the sluggishness of the circulation in the affected organs.

But, in order to constitute a complete attack of night-mare, another circumstance is wanting, namely, a dilatation of the œsophagus. Amid the morbid phenomena which have been already touched upon, the patient falls asleep. The air in the stomach continues to be rarefied by the heat, and ascends into the œsophagus, which becomes dilated, and presses on the trachea. But, if this pressure has reached its highest pitch, the patient screams out, and suddenly rises, and at the same time, by an involuntary act of swallowing, presses the air collected in the œsophagus back into the stomach, by which the distressing sense of suffocation is got rid of; or the patient may raise himself up, and discharge the air contained in the œsophagus by frequent eructations. If the patient now falls asleep again, and the spasm at the two parts of the alimentary canal is not yet perfectly resolved, the scene is repeatedly renewed, until that event takes place.

Nosology furnishes us with another disease very similar to the one we have described, namely, *globus hystericus.* In this, too, the fauces are attacked with a sense of constriction, and the patient suffers from a straitened respiration, and a sensation of pressure about the pharynx, as if a ball were fixed there. Together with this, other and frequently severe, spasmodic symptoms are present, which are usually terminated by considerable eructations. This similarity confirms the opinion which the symptoms of incubus had rendered highly probable, and shows that it is a spasmodic disease.

Diagnosis. This is very easy, says our author; for neither asthma, nor any variety of orthopnœa, can be confounded with this disease, if we keep in view the præcordial oppression, and the dyspnœa vanishing with the first full inspiration. Dr. Strahl would wish to change the name of the disease, and, instead of *incubus,* proposes *Inflatio ventriculi œsophagea* for the chronic form, and *Inflatio ventriculi nocturna* for an accidental attack. Dr. Strahl then shows, at considerable length, that atmospheric air may circulate in the blood-vessels; and observes, "that if we are convinced that the development of air in the body is not a pathological but a physiological process, and that it is not its formation, but its retention, which is injurious, we shall be naturally led to consider the restoration of the skin to the full use of its functions as the most pressing indication, which has not yet been done with reference to the cure of flatulence." (P. 137.)

Prognosis. The older writers thought night-mare a dangerous disease, while of late it has been commonly supposed not to be a disease at all, but barely a morbid symptom, and at most the effect of something which, though injurious, was but transient and unimportant; and it was imagined that it could not do any considerable injury to the system. But that night-mare is not an unimportant disease, can be testified by all who have suffered under it. A disease which returns every night, and robs several hours of their destined sleep; a disease which calls forth phenomena which accompany only the most serious disturbances of the frame, and which, by the violence of its attacks, produces and keeps up in its martyrs the fear of instant death; a disease, in short, which is complicated with so many serious anomalies of the animal functions, (or, to speak more correctly, which arises from them,) can certainly not be looked upon as unimportant.

Treatment. The treatment of night-mare formerly rested on no fixed principles, but was as various as the theories of the nature of the disease. The followers of the humoral pathology, who attributed incubus to a thick mucus, expected success from its removal; and it is impossible (says Dr. Strahl) to refrain from smiling at the army of remedies with which they went out to battle against the night-mare. Thus, for example, Huldenreich proposes Præparantia, incidentia, abstergentia, recludentia, purgantia universalia et partialia, discutientia, educentia, tandem viscera interna alterantia, roborantia. *(Huldenreich, Dissert. de Incub.* 1658, p. 24.*)*

Wolfgang Wedel, who, as well as many other old writers, supposed plethora to be the proximate cause, recommends bleeding, cupping, setons, issues, and other depletory remedies.

Forestus, and his followers, call a whole host of nervine remedies into the lists. "Dum cubitum itur, sumatur bolus ex conservâ flor. ror. mar. lavendulæ, menthæ, pæoniæ, aut conditæ radicis pæoniæ, aut excorticatæ." *(Forest. Obs.* 52.*)*

The indications of cure are three:

1st. To lower the excessive sensibility of the ganglionic system;

2dly. To prevent the development of flatulence;

3dly. To excite the skin to its normal degree of activity.

But, before we enter on the consideration of these points, it will be proper, says our author, to give the treatment that should be adopted during the attack itself. At a time when, from ignorance of the nature of his disease, errors in diet, and other causes had increased the violence of his nightly attacks to a frightful pitch, Dr. Strahl had gradually accumulated a little shop-full of antispasmodics by his bedside. He tried everything from castoreum to aqua melissæ, but in vain, for his attacks frequently lasted from ten at night till three in the morning, and not a single remedy was of the slightest avail, except perhaps the aqua laurocerasi, and even that was of doubtful efficacy. He at last tried a cup of chamomile tea, and, as soon as he had swallowed it, felt a slight rumbling in the region of the pylorus, while several violent eructations demonstrated that the spasm at the cardia was also resolved. His breathing became easier, a kindly relaxation set in, and a placid sleep made our author forget his troubles. This agreeable experiment was repeated every evening, and Dr. Strahl found that he had discovered a specific against this dreadful disease. The infusion must be very weak, and drunk exceedingly hot; but hot water cannot be substituted for it. Waller, who, like our author, was for years a martyr to the disease, found equal benefit from the use of carbonic acid; and hence Dr. Strahl experienced the same effects from good bottled beer. If the chamomile tea, for any reason, cannot be administered, the next best remedy is friction of the abdomen, particularly about the region of the pylorus. Warm baths are also useful, but their temperature must not exceed 26° of Reaumur (= 90½° of Fahr.) Eating, too, is certainly beneficial, and those who go to bed with empty stomachs are most liable to attacks of night-mare.

To fulfil the first indication, *i. e.* to lower the sensibility of the ganglionic system, Dr. Strahl relies chiefly on low diet; for example, the patient's breakfast is to consist of two cups of tea, and a moderate portion of wheaten or of fine rye bread, several days old. He may eat this bread either dry, or with syrup, or with very good fresh butter. Medicines are of little or no use.

The second indication consists in curing and preventing flatulence. Dr. Strahl speaks with some approbation of a method of curing flatulence recommended by many eminent physicians from Galen onwards, namely, dry cupping; he has not, however, tried it himself. As for the long catalogue of carminatives, he thinks them beneficial in slight cases, but useless, or even injurious, in severe ones. He then proceeds to give a list of foods and drinks to be abstained from; among these he reckons "milk, buttermilk, and whey, which are extremely flatulent to persons not accustomed to their use; though they are not so to those who drink them daily, and work very hard when using them, as country people do. It was therefore a rule laid down long ago by Frederic Hoffmann, that consumptive patients can use a milk diet with advantage only when their digestive organs are in good condition, and that what is called a *whey-course* is very injurious, when prescribed for weakly townspeople, or hypochondriacs, or persons inclined to suffer from acidity or flatulence." (P. 209.)

To prevent flatulence, moreover, the bowels must be kept open, and nothing answers this purpose so well as aloes, or the mildest enemata.

The third indication is to excite the skin to a healthy degree of activity. This is to be effected by wearing a flannel shirt, by friction, and by bathing. Dr. Strahl enters at some length into the details of this last subject, but we shall not follow him, as most of our readers must be familiar with them. He defines a hot bath to be one between 30° and 40° of Reaumur, *i. e.* between 99½° and 122° of Fahrenheit! It seems that Monier, a French physician, once boiled himself for eight minutes, in a bath at 122° Fahr. and lost a pound and a half weight by the experiment. (P. 222.)

We must now conclude this faint sketch of Dr. Strahl's very elaborate work, which certainly does great credit both to his abilities and his industry. We trust, however, that he will excuse us for expressing our surprise at the strange guise in which his quotations from foreign languages appear; a surprise which is increased by the fact that the book is printed at Berlin.

Consumption Curable; and the Manner in which Nature as well as Remedial Art operates in effecting a Healing Process in Cases of Consumption, &c. By Francis Hopkins Ramadge, M.D., F.L.S., Fellow of the Royal College of Physicians.—London, 1834. 8vo. pp. 168; four Plates.

Some well-meaning but mistaken persons have accused us of a bias in favour of the Fellows of the College of Physicians, and have thought that, in the debates which now convulse the medical republic, we have advocated with too much warmth the cause of those grasping monopolists, several of whom have actually seized upon places worth twenty pounds sterling per annum! Now, we plead not guilty of a bias, but guilty of a predilection. We have always been pleased with the favourite phrase of our old writers, "a grave and *learned* doctor of physic," and we have thought that those who have been hurried away from their books at fifteen or sixteen, and placed behind desks or counters to pick up knowledge by stealth or accident, were not quite so likely to maintain the ancient character of the profession, as those who have had unlimited opportunities of study, and have drunk deep from those fountains of learning which, for ages, all that is most honourable and most revered in England has combined to foster. This theory we were prepared, and are still prepared, to uphold by an appeal to facts; yet we fear that our adversaries (if critics so good-humoured as ourselves can have any,) will poke "Consumption Curable" in our faces, and will say "Here is a Fellow for you!" just as when the philosopher of old had unluckily defined man to be a biped without feathers, somebody thrust a cock stripped of his feathers into his school, and cried out "Here is Plato's man for you!" We trust, therefore, that we shall receive due credit for our candour in confessing that the work before us is of inconceivable poorness and flatness, and stands unrivalled for pompous imbecility and boastful nonsense. If we were thick-and-thin partisans of the Fellows, (which we are not,) our sole consolation would consist in the reflection, that, since the foundation of the College, there has been but one Ramadge; and that copies of this book, the few copies that are preserved, (for books of this kind have a wonderful tendency to grow scarce,) might be put up in glass bottles, as far greater curiosities than a scirrhous heart, or an acephalous fœtus.

We are afraid that, when we tell our readers how Dr. Ramadge proposes to cure phthisis, they will imagine that we are indulging in an agreeable embellishment, but we assure them that we never were more serious in our lives. The first *methodus medendi*, then, consists in producing an emphysematous state of the lungs by inhalation; and the second way is, to make the patient catch cold, as a catarrh is not only an immediate benefit, but is capable of effecting a lasting cure. And now for a few extracts, to justify us in our readers' eyes.

"There are but two modes by which we can hope to cure this disease; the one is by rendering it chronic, and the other by artificially enlarging those portions of the lungs which are pervious to air. In the first, we endeavour to effect an absence of constitutional disorder; but, after this change is effected, there may still remain for an indefinite period one or more cavities uncicatrised, with lining membrane, partly semi-cartilaginous, or of such condensed and insensible structure as to be productive of little inconvenience, if we except occasional cough, and some hæmorrhage occurring at long intervals, and rarely to a great extent. In the second there is produced what is invariably seen when nature or art has effected a cure, an enlargement of the vesicular structure of the lungs, and subsequently a gradual healing of the tuberculous excavations." (P. 88.)

"*Inhalation.* I am well aware that many objections may be started to this practice from prejudice, or inefficient observation. Strange to say, the principle, on which this mode of treatment operates beneficially, appears to me quite unknown to medical men. It is supposed that the inspiration of medicated vapours has in many instances proved useful by allaying cough, and by producing some healthy and unexplained change in diseased parts of the lungs, as well as on such adventitious surfaces as are formed after the softening, or discharge, of tuberculous matter. The permanent advantages which inhaling is capable of affording, I am convinced, have been very rarely witnessed by the generality of practitioners.

First, because the period, during which persons are directed to inhale, is generally too short to produce either a catarrhal, or an enlarged state of the lungs, one of which conditions is absolutely necessary in order to suspend, or cure consumption: and, secondly, the apparatuses employed for this purpose are not constructed scientifically, so as to facilitate those physical changes, which it is desirable the chest should undergo." (P. 97.)

" Neither perfect recovery, nor indeed exemption from the danger of relapse into a consumptive state, is found to occur, except in very rare instances, unless the pulmonary organs become naturally or artificially voluminous; which not unfrequently happens by the supervention of some catarrhal state of the larynx, trachea, or bronchial tubes. It is a most fortunate circumstance for some affection of this kind to occur early, as it never fails permanently to arrest this most fatal disorder. When the lower lobes of the lungs are entirely free from tuberculous matter, (which is often indisputably the case for a considerable period, unless there be strong hereditary predisposition;) and though there exist at the same time cavities in the superior part of one or both lungs, clearly indicated by perfect pectoriloquism, there is almost a never failing hope of recovery to be entertained, provided an emphysematous sound can be heard.

" In fact, I never knew a consumptive person who did not lose all his formidable symptoms and regain health, when an emphysematous, or a semi-asthmatic change had early taken place. And likewise, I never knew an individual to become consumptive who was a subject of chronic catarrh, or any species of asthma. It is from long consideration of these facts, that I interfere but little with any catarrhal inflammation, which may show itself in the midst of consumptive symptoms, for I well know that it will gradually supersede all these." (P. 100.)

" *Climate.* It has been seen from the preceding pages how much I am at variance with the common opinions entertained of phthisis, and to none am I more diametrically opposed than to those which respect climate. So far from sending a consumptive patient to the south of France or Italy, I should, if change be requisite, deem the climate of St. Petersburgh a thousand times more beneficial. In the latter case he has a chance of contracting catarrh, and of thus staying consumption; in the former, any catarrhal state which might exist would assuredly be fatally removed. My experience on this point is full and explicit; and I could substantiate it, were it requisite, at the close of a treatise, the scope of which has been to prove the true nature of this little understood malady, by numerous cases. So decided am I on this head, that I never admit into the Infirmary a phthisical patient with recent catarrh, because its wards are heated in winter-time so as to resemble a moderate summer temperature. In uniformity with these opinions, I feel no anxiety respecting consumptive patients being kept scrupulously withindoors. Whenever the weather permits, they should be allowed to take an airing daily; but should not be suffered to remain so long as to be sensible of chilliness or cold." (P. 131.)

There is an appendix of thirteen cases; but, though we can afford room for one only, we will regale our readers with the titles of all, as they are pleasant enough in their way.

1. Supposed consumption cured by paracentesis.
2. Consumption cured by paracentesis. [The patient died, however.]
3. Consumption, in its very advanced stage, singularly arrested. [The patient died, in two months, of pleurisy.]
4. Pulmonary excavation discharging its contents by an opening made in the right side of the neck. [Patient died.]
5. Consumption cured by paracentesis.
6. Consumption cured by suddenly supervening empysema.
7. Consumption cured by neglect.

"I will venture one observation on this case, which, although it may appear harsh, regard for truth and the advancement of medical science compel me to make, namely, that had this person when reduced to a phthisical state recurred to medical advice, the probability is, the bronchial affection, which was his safeguard, would, as is but too frequently the practice, have been interfered with, its value being unknown to the profession, and his life consequently shortened by many years." (P. 156.)

8. Consumption spontaneously cured.
9. Remarkable influence of the protective effect of bronchial affection.
10. Complication of disease ending in phthisis.
11. The protecting influence of catarrh, supervening on consumption, exemplified.
12. Consumption cured by exposure to cold, and want of faith in medicine.

"Mr. D—, aged twenty-four, through irregular habits, had so materially impaired his constitution, as to fall in consequence into a decline. He of course availed himself of the benefit of medical advice, which produced no very visible amelioration of his state of health. Being naturally of active habits, he grew impatient of the confinement to which he was subjected, and, tempted by the return of spring, he suddenly deserted his heated apartment, and determined, since he concluded he must die, to die in the manner most agreeable to himself. Accordingly, he betook himself to his favorite sport of fishing. This was in the month of March, a period at which easterly winds are most prevalent. The worst consequence of this apparently rash exposure was, that, after a time, he caught cold, which, as it would appear, was confined to the trachea. His respiration was sensibly affected, and he laboured under a distressing fulness of the chest. He continued subject to this affection, with an apparent increase of the violence of his disorder; but he still rejected all care and medicine, and persevered in going out. After some period he began to exhibit signs of amendment: he gradually lost his emaciated appearance, acquired flesh and bodily vigor; but was much annoyed by wheezing of the chest, and loud rattle in his throat. He had remained in this state for some months when he applied to me. On examination of his chest, and hearing a detail of his complaints, not only from himself, but from the gentleman under whose care he had previously been, I at once perceived that he was indebted for his recovery from consumption to this catarrhal state of the trachea. I may here observe, that recoveries of this kind are more frequent among the lower than the other classes of the community, owing, doubtless, to what may at first appear a misfortune, but is, to the consumptive patient, in numerous instances, a blessing,—exposure to cold!" (P. 164.)

13. Case of consumption relieved by inhalation, and detailed by the patient himself.

"Ohe jam satis est!" our readers will exclaim. By no means; we have a titbit in store for you: it is not about physic, but about law; Dr. Ramadge, you know, is fortunate in both.

"It has been my misfortune to witness, in the course of my practice, but too many afflicting instances of the maladies engendered 'by a mind diseased.' Well has the poet of Nature remarked this, amongst his aggregate of human ills, when he mentions 'the law's delay,' than which I know not a greater destroyer of peace of mind, and with it of the body's health. We are accustomed to look back with horror on the proceedings recorded by historians as having taken place in that iniquitous court, which went under the name of the Star Chamber. How then, judging by analogy, will our posterity execrate the records left them of the practice of the Court of Chancery! They will there read a piteous tale of justice withheld, of hope, the brightest boon of heaven, extended and protracted, until, to look forward, is to exclaim, with *Lear*, 'Oh! that way madness lies!' The ghastly train of diseases, consumption, cancer, and other fell destroyers of the human race, which I have seen brought on the wretched victims of the procrastination, until recently the characteristic of this court, leads me, in common with the general voice, to reflect with gratitude on the change that has been effected by the wise energy of one master-spirit. Had the reforms introduced by him been adopted even a few years sooner, how many a fair fabric of human happiness would have been spared that now lies dismantled and overthrown!" (P. 86.)

It is needless to repeat our opinion of this work. The most doubting will cease for a time to hesitate; professed panegyrists will be unable to praise; and Dr. Ramadge's work will at least have the merit, if it has no other one, of making critics unanimous.

The Principles of Diagnosis. By Marshall Hall, M.D., F.R.S. Two Vols. in One.—London, 1834. 8vo. pp. 426.

The self-evident importance of correct diagnosis to the successful treatment of disease renders every attempt at its improvement laudable; but when these attempts, although leaving much to be desired, still achieve nearly all that is possible, there is no praise to which their undertaker is not entitled. In this position we conceive Dr. Marshall Hall has placed himself. Science and humanity are equally his debtors: and long may he enjoy their rewards! This is not unmerited eulogy; and we know that he is superior to the affectation of disclaiming what it has been the labour of his life to deserve.

"One of the sources of diagnosis enumerated constitutes a department of knowledge which may be termed *new:* it is that of the effect of remedies, and especially of bloodletting, as a diagnostic of diseases, and as a criterion of the general powers of the system. In cases in which it is doubtful whether the pain, or other local affection, be the effect of inflammation or of irritation, the question is immediately determined by placing the patient upright, and bleeding to incipient syncope: in inflammation much blood flows, in irritation very little. The violence of the disease, the powers of the system, and the due measure of the remedy, are determined at the same time. *There is, in my opinion, no single fact in physic of equal importance and value in the diagnosis of acute diseases, and the use of an important remedy.*" (P. 3.)

Now, as a general truth, this proposition must meet with universal assent; but the exceptions to it are so striking, that, next in importance to admitting the fact, is insisting upon its occasional fallibility. Every one, and Dr. Marshall Hall especially, must have seen the mischiefs resulting from injudicious depletion; that treatment having been persisted in, in virtue of the apparent impunity with which it was sustained. It will not be contended that bloodletting is always appropriate in erysipelas: indeed, some Brunonians, who are not therefore bad practitioners, never employ it; and, on the contrary, it is a measure never omitted by others. Impartial judges justly condemn both these extremes; for it hardly ever fails to afford temporary relief, and rarely furnishes the evidence of Dr. Hall's test at the time of its application. No; the evil is manifested in precipitating the typhoid termination of severe erysipelas. Therefore, the man whose bloodletting in this disease should be regulated by the author's criterion would do incalculable mischief in treating a disease which we believe is oftener one of asthenia than the reverse. Moreover, the same remarks will, with equal justice, apply to rheumatism, in which the present relief afforded by bleeding is in a direct ratio with the permanent mischief; though nothing can exceed the readiness with which the system parts with blood in this disease. In an advanced part of the first volume he recognizes some exceptions to his own rule, but not to the extent which his large experience could supply.

"The progress of medicine as a science—might we not say, as an *abstract* science?—may be considered as greatly dependent on that of our knowledge of morbid anatomy; but the advancement of physic as a practical art is intimately linked with our knowledge of the history, symptoms, and the effects of remedies,—with the diagnosis of the disease in the living patient." (P. 3.)

A more sterling truth was never enunciated, or one more diagnostic of a philosophical physician.

The old notion that sailors are less obnoxious to calculous disorders than landsmen is perpetuated here; and therefore we infer that Dr. Hall does not accept the plausible explanation that the two extremes of existence, infancy and old age, furnish the largest number of examples of stone in the bladder; and, as both these eras are without the pale of nautical life, the scarcity of the malady among seamen is in good measure accounted for.

"There is a point in the history of diseases which still requires attention, viz. what has been termed the *metastasis*, or *conversion* of diseases. This event has occurred in gout, rheumatism, erysipelas, cynanche parotidea, some cutaneous affections, suppressed hemorrhoids, &c. But I think some of the events which accompany the dyspepsiæ have been mistaken for the *metastasis* of diseases; and some of the effects of the *treatment*, as will be noticed immediately, are very apt to be mistaken for changes or consequences of the disease." (P. 26.)

"In *inflammation of the abdomen, with severe pain*, there is a continued state of contraction of the muscles of the face, inducing an unnatural acuteness of the features; the forehead is wrinkled, and the brows knit; the nostrils are acute, drawn upwards, and moved by the alternate and irregular acts of the respiration; the wrinkles which pass from the nostrils obliquely downwards are deeply marked; the upper lip is drawn upwards,* and the under one, perhaps, downwards, exposing the teeth; the chin is often marked with dimples. This state of the features is aggravated on any increase of pain, from change of position, muscular effort, or external pressure. Indeed, in cases of abdominal affection, it is better to press on the abdomen, or beg the patient to raise the head and shoulders, and watch the *effect* on the expression of the countenance, whilst the patient's mind is occupied with some other subject, than to ask the direct question whether pressure induces pain, as is usually done; for patients naturally suppose that every *painful* part must also be *tender*, and are therefore apt to answer in the affirmative, although incorrectly," (P. 47.)

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* "See Laennec, ed. i., t. i., pp. 90, 398."

While adopting this useful suggestion, we may also remember that a great difference in the effect is produced by the amount of pressure, severity of pain not being always in proportion to that amount. The muscular soreness accompanying some acute affections, sometimes rheumatic—is increased by slight superficial pressure; but if this be persisted in, and converted into a tolerably firm and continued one, the pain diminishes, thus furnishing a diagnostic of the absence of peritoneal inflammation; keeping in mind that in some varieties of erratic childbed, or "peritoneal fevers," excessive tenderness of the abdomen, indeed absolute intolerance of the slightest pressure, has been held not to depend upon inflammation. To establish this valuable fact, no one has contributed more than our author, except perhaps the late Dr. Gooch.

"The presence of morbid changes of structure affords the evidence of previous morbid actions; their absence affords the proof that such morbid actions have not existed." (Vol. i. p. 185.) Surely this last part will not be even generally assented to; for it cannot be denied, nor disproved, that structure and organs shall have been the seat of morbid actions,—ay, and the most intense and disturbing ones, without furnishing any even the slightest post-mortem evidences of their previous existence. To go no further than inflammation, may we not find an entire absence of these indications of disease, yet the patient shall incontestably have suffered their severest forms, stopping short of those structural changes, which the severity of the disease prevented by destroying life before their maturation. Disorders, serious from their intensity and duration, have had their seat in parts whose structure they have failed to disorganize: this is constantly happening, in spite of the dogma that "their absence affords the proof that such morbid actions have not existed."

The following admission is of infinite value, which is enhanced by the fact of its emanating from so high an authority as Dr. Hall, who has a strong partiality for a branch to which he here does entire justice:

"I would observe, however, that the mere student of morbid anatomy is not a good practical physician. There is so much to be considered in the condition of the general system, in the sympathies with the organ, or organs, principally affected, in the effects of remedies, &c. that he who has an eye to the mere disease, the morbid change of structure, alone, is not in possession of the knowledge required to treat the patient." (P. 185.)

Very germane to this matter, but often, very often, forgotten over the victim of the disease, is the following:

"It seems probable, indeed, that the solids, the fluids, and the nervous system, are variously but simultaneously involved in all diseases. The morbid change is seldom confined to a part, an organ. Certain morbid appearances, and certain associations of morbid appearances, are met with in fevers, in the eruptive diseases, in inflammations, in scrofulous or tuberculous affections, in dropsies, in hæmorrhages, &c. to which my attention has been forcibly drawn, and to which I wish to draw the attention of the profession. Such forms and such associations of morbid changes constitute the disease. Each of such forms is peculiar. The same change of structure observed in different diseases, according to our usual phraseology, is not, in fact, the same. The inflammatory affections of the skin, which occur in scarlatina, in rubeola, in variola, are not the same. In like manner morbid changes of structure, observed in febrile, inflammatory, and other diseases, although designated by the same term, are not in truth the same." (P. 6. vol. ii.)

The following observations, too, should never be lost sight of for a moment:

"The investigation into the state of the '*constitution*' of the patient, is one which has been greatly neglected, and which must be studied anew.' It is to this department of knowledge that Celsus alludes in the following paragraph: 'Ob quæ conjicio, eum qui propria non novit, communia tantum intueri debere; eumque qui propria nosse potest, ea quidem non oportere negligere, sed his quoque insistere. Ideoque, cum par scientia sit, utiliorem tamen medicum esse amicum, quam extraneum.' It is to this department of medical knowledge that I would particularly call the renewed attention of the profession. Every physician feels how much easier it is to prescribe for a patient for whom he has frequently prescribed before, than for a stranger. The habit of such a patient in regard to the kind and severity of the disease, and in regard to the power of supporting important remedies, is familiarly known to him. There is in every one a certain idiosyncrasy, to which it is highly important to attend with scrupulous care. This notion is become antiquated of late; it is nevertheless founded in truth, and will meet with acceptance, as an old friend, by all practical physicians." (P. 9. vol. ii.)

"It has been my wish, in the first place, as much as possible, to arrange and bring before the young physician every case which can require his attention in actual practice." (P. 19. vol. ii.)

This, with all deference to the author, we deem unattainable: an accurate calculation is impossible, because many causes are constantly acting as disturbing ones, to prevent any attempt at a nosology of the majority of deviations from healthy function; and these deviations are the diseases on account of which the practitioner is consulted, perhaps, seven times out of ten. He expresses his desire to avoid "surcharging these sketches with the names and descriptions of diseases, which are more objects of curiosity and over-refinement than of practical utility.

"I must be excused for still thinking the terms fever, inflammation, rheumatism, scirrhus, &c., useful and practical designations of disease, just as rubeola, erysipelas, and gout are so." (P. 19, vol. ii.)

However laudable it may be, and we admit that it is so, to supersede arbitrary terms by scientific and descriptive designations, it is to be feared that terms having the force or qualities of definitions, will ever be things to be desired in the study and practice of medicine. Almost equally difficult appears to be what Dr. Hall calls a *diagnostic arrangement* of diseases: a severe critic would encounter but slight difficulty in shewing its fallacy.

We do not think that the reasoning is sound which concludes that, because fifteen hundred varieties of the rose have been identified, we may therefore expect an approximation to similar success in the diagnostic arrangement of diseases. Comparison and contrast are the elements of the botanical experiment, and proximity of the objects furnishes a ready means of distinguishing identity or difference: far otherwise in disorders, where the amount of resemblance or disparity is ever varying,—where the symptoms cannot be sensibly or tangibly appreciated, as in the case where matter is the thing judged of.

It is not to be expected that fever, the theme of so many pens, should fail to afford Dr. Hall an opportunity of evincing a familiarity with this engrossing and important subject: this he does, and in a way that makes us regret he did not give a large division of his work to the subject.

From the notes of interrogation after the mention of malaria and contagion as the causes of typhus, we are to infer that Dr. Hall doubts those sources being true ones of this fever; a scepticism which he will share with but few, and which the appeal to fact—with him a favourite one, will certainly not fortify. He also appears to regard it always as an idiopathic disease, and one not likely to be superinduced: if we correctly so understand him, we are again dissentient. He denies the inflammation and ulceration of Peyer's glands being the effect, the cause, or the complication of typhus; and affirms that they are an essential part of the disease. Perhaps this point may still be considered as doubtful; but our author's theory is certainly confirmed by the late researches of Dr. Chomel.

We are surprised that, in describing the morbid anatomy of typhus, but slight, if any, notice is taken of the "sticky varnish," well described by Dr. Armstrong as almost invariably lining the bronchial passages; the existence of which may in part account for the condition of the blood, as it undergoes less perfectly the pulmonary changes, in consequence of this peculiar mucous lining preventing the perfect access of the atmosphere.

Admitting the propriety of Dr. Hall's two great divisions of fevers into "continued" and "periodic," his assigning the "remittent forms" a place in the latter is more questionable. In intermittent fevers there is an interval between the recurrence of the symptoms of the disease: in remittent fever there is no interval, but, in lieu of it, a continuity of the disease and symptoms, with a periodic exacerbation of the latter. The diagnostic of remittent fever, the absence of the periodic cold stage, is not alluded to; nor is the state of the pupil dwelt upon as an index to the condition of the brain in fever, independent of effusion.

The chapter on the diagnosis of Irritation, Exhaustion, Delirium Tremens, and Erethismus Mercurialis, is invaluable.

It would be unjust to Dr. M. Hall to withhold the highest praise from his eminently successful labours in a department of his art which he is well known to be practically familiar with, and, consequently, well fitted to write upon. His unwearied zeal in the pursuit of knowledge forbids us to despair that, as he must necessarily advance in the attainment of his favourite objects, we shall at a future period enjoy the fruits of labours even still more useful to mankind.

Abhandlungen aus dem Gebiete der Practischen Medicin und Chirurgie. Von Dr. Adolph. Leop. Richter, &c.—Berlin, 1832.

Dissertations on Points of Practical Medicine and Surgery. By Dr. A. L. Richter. 8vo. pp. 261.

This is an extremely pleasant and instructive volume, consisting of several detached medical and surgical essays, exhibiting a view of what has been previously written on the subjects of which they treat, and interspersed with interesting cases and remarks, which communicate to the whole an air of originality. Papers of this kind, combining literary history with the statement of new facts, are particularly entertaining and useful, and require extensive information, together with considerable talent and judgment, in their author. The work before us evinces all these: it is not, however, altogether free from a fault which pervades the entire medical literature of Germany—that of too great diffuseness, and a disposition to dwell on trifling circumstances. We cannot here refrain from expressing our regret at this unfortunate peculiarity in the German writers; nor is it possible to suppress a feeling of chagrin, when, as frequently happens, after the toilsome enucleation of an author's meaning,—cum sudor ad imos manaret talos, we find that we have waded through a dense volume to come at something which might have been amply set forth in half a dozen pages.

We can assure our Teutonic brethren, that, if they would give themselves only about a twentieth part of the trouble they do, theirs would be the finest medical literature on earth. Their information is immense, their correctness exemplary: all they lack is condensation, which, however, is a most essential requisite for scientific excellence.

We by no means wish to insinuate that these remarks are particularly applicable to Dr. Richter's book, which, if it be not exempt from the charge of unnecessary diffuseness, is, on the whole, less obnoxious to it than most others in the same language: some of the cases, however, are narrated at so tedious a length, that we have been unable to present them to our readers, though desirous of doing so, from their really interesting character.

The subjects treated of in this volume are—

1. The use of gypsum in the treatment of fractures of the leg.
2. The preternatural formation of bone in muscles.
3. The curative process of nature in introsusception.

4. Chronic rheumatic inflammation of the synovial membrane of the elbow-joint.
5. The interstitial absorption of bones.
6. Four interesting cases of disease.
7. The production of modified and spurious small-pox, and of cow-pox, from the contagion of genuine small-pox.
8. Gangrenous erosion of the face in children.

In the first article our author alludes to several recent contrivances for the treatment of fractured legs; as that of Förster, who, after the bones are replaced, lays the leg, with the foot extended, in a box of sufficient length, which is half filled with sand moistened with water. So much sand is then poured on each side of the leg as to surround it to the edges of the shin, which is left free. In the lower end of this box are two little doors, to admit of the extension of the foot. Instead of the footboard Kluge has substituted a valve, perforated with holes for the transmission of the extending cords. The sand, kept constantly moist, forms an equal and comfortable support for the limb without exerting undue pressure; it affords a ready access to the injured part, and has the advantage of being always procured without difficulty or expense. Dr. Richter states, that, although he has seen this plan successfully adopted in many cases of simple and complicated fractures of the leg in the Berlin Hospital, he does not regard it in general as the best mode of treatment: he considers it chiefly applicable to the early or inflammatory period of those cases where there is injury of the soft parts; he also thinks it a desirable means when the accident occurs in the country, and *no other can be obtained.* The latter is always a good reason for taking what one can get, and would be our only motive for using the sand, which appears to us a very slovenly and inefficient proceeding.

The contrivance of Larrey is much neater. Instead of splints, longitudinal folds of linen, soaked in ointment of styrax, are applied over the fractured part; the whole limb is then carefully surrounded with lint and compresses dipped in a glutinous fluid, prepared with wine, or camphorated vinegar, and white of egg, and the whole is retained by an eighteen-tailed bandage. (*Journal Complémentaire du Dictionnaire des Sciences Médicales,* tom. xx.)

To these we may add, a method recommended by the late Mr. Allen, of Edinburgh, who, in the treatment of these and other fractures, made use of pasteboard splints, moistened in warm water, so as to adapt them to the shape of the part, and then soaked in glue, by the hardening of which a light but firm case is formed for the fractured limb. (*System of Pathological and Operative Surgery,* vol. ii. p. 67.)

The earliest account of the use of gypsum which Dr. Richter has met with, is in an extract from a letter of Mr. Eaton, formerly English consul at Bassorah, to Dr. Guthrie, of Petersburgh, contained in the ninth volume of the Medical Commentaries. The practice is here mentioned as being in use among the Arabian surgeons. L. F. v. Froriep also, in his Introduction to Roux's Parallel between English and French Surgery, states the same practice to be prevalent among the Moors on the northern coast of Africa.

"So far as I know," continues Dr. Richter, "a trial of this method of treatment in fractures of the leg has only been made in the hospital at Berlin in the year 1828-9, by order of the director, Professor Kluge, and under the inspection of the house physician, Dr. Keyl. This practice, of whose utility I have also had an opportunity of convincing myself, has been made the subject of an inaugural dissertation by Dr. F. W. Ferd. Rauch, entitled 'De gypso liquefacto ad fracturas ossium cruris curandas adhibendo:' Berolini, 1829. The following detail is given of the mode of proceeding. A wooden box is used, of such a length that the leg and condyles of the femur may be conveniently laid in it. This box is half filled with sand; on the sand is laid a piece of pasteboard six inches broad, and on each side of this a similar piece is stuck into the sand, so that the space thus enclosed indicates the form of the mass of gypsum about to be poured in. These pieces of pasteboard, as well as the calf of the leg, are anointed with oil, or lard, to prevent the adhesion of the gypsum. The leg is then placed, with the foot extended, in the space enclosed by the pieces of pasteboard, and the gypsum is poured quickly and without interruption around the leg till the larger half thereof is surrounded by it. (The gypsum is to be prepared for this purpose by gradually pouring a peck of gypsum into about eight quarts of water, carefully stirring the mixture.)

"In half an hour the gypsum is hardened, and the box as well as the pasteboard may be removed. A more convenient adjustment is afterwards made, by the adaptation of a box, twenty-two inches long by seven broad, whose sides can be let down and removed from the bottom. The hinder wall has also an aperture for the reception of the ham. This box may be used for either leg, and forms a receptacle in which the extended limb may have the gypsum poured around it. After the gypsum is hardened, the sides of the box may be let down, and removed along with the bottom."

The gypsum may, according to the circumstances of the case, be applied in an unbroken mass, as above described, or in detached portions, which admit of being separately removed. Each portion of the gypsum may be made to assume any desired shape, by using a piece of pasteboard, of the proper form, as a mould.

When the fracture is complicated with a wound, an aperture of sufficient size must, of course, be made in the covering of gypsum.

The gypsum is best applied in a continuous mass in cases of simple fracture, where we have little to apprehend from inflammation, or other local consequences. The use of separate portions is more applicable to complicated fractures.

Some more minute directions are given for the preparation and application of the gypsum, for which we must refer to the original memoir.

Dr. Richter details the case of a Captain K—, which he treated with success on the above-mentioned plan. The fracture was situated three inches above the ankle-joint, the bone was splintered, and the injury attended with much contusion, swelling, and extravasation of blood. After the inflammatory symptoms were subdued by appropriate means, the gypsum was applied in separate portions, and at the expiration of sixteen weeks the patient was able to return to his duty.

All ingenious attempts to improve the mechanical department of surgery are worthy of attention; but, after all, the treatment of a fractured leg is so very simple a matter, that it would require some ingenuity to mar it; the whole mystery being to lay the leg straight, and keep the toes from turning inward or outward, which may be admirably effected by means of common wooden splints and two or three pieces of tape.

The second paper, *on the Morbid Formation of Bone in the Muscles*, is of considerable interest.

This phenomenon, as occurring in the muscular structure of the heart and blood-vessels, has been already frequently observed and described: its occurrence in the voluntary muscles, however, has attracted less notice. The attention of our author has been chiefly directed to a disease of this nature observed among the Prussian recruits, consisting in a morbid deposition of bone in the muscles on the fore part of the shoulder, and attributed to the pressure of the musket, which induces a species of chronic inflammation, with gradual induration of the parts, terminating in the conversion of a greater or smaller portion of the muscular substance into a bony mass. We are not aware that any such affection is prevalent among our own troops; but it is to be remembered that the German muskets are very much heavier than ours, and Dr. Richter states, that all the recruits suffer more or less from inflammation and swelling of the shoulder, till they become habituated to the exercise. In the greater number these symptoms gradually disappear, without being followed by any permanent bad consequences: every year, however, affords several examples of the disorganization alluded to, which, in our author's opinion, is favoured by friction with spirituous applications, which the men are in the habit of using with a view of allaying the inflammation, but, in reality, with an opposite effect.

"At the commencement of the disease," says our author, "the bony tumors present themselves in the form of knots under the skin, of the size of a hazel-nut; they feel elastic and cartilaginous, are somewhat movable, and are not circumscribed, but blend imperceptibly with the surrounding inflammatory swelling. These knots afford nuclei for further morbid deposition in the contiguous parts already degenerated in their texture. The tumor increases from day to day, becomes continually harder, and, as the inflammation subsides, more circumscribed; it assumes an oval form, and is produced at its lower end into a hard cord, which is afterwards ossified, and appears like a stem in the tendon of the deltoid. In the course of from four to six weeks I have seen the bony deposition increase in this manner to the size of a goose's egg. The motion of the arm is of course impeded by this degeneration. During the inflammatory stage the patient cannot use the limb with freedom: when, however, this is past, and the hardened tumor has acquired only the magnitude of a walnut, the soldier is not prevented from the exercise of his duty, and complains of little inconvenience, unless he be ill-disposed, and wish to avail himself of his mishap as a ground of exemption from further service. If the tumor has attained a larger size, and extended itself to the coraco-brachialis and pectoralis major upward to the clavicle, the elevation of the arm, and its lateral movements, become seriously impeded."

Tumors of this kind may be extirpated, or their resolution may be attempted by discutient applications: our author's experience is unfavourable to the former procedure. He relates the cases of two soldiers from whom he removed such tumors, under the impression that they were separate formations in the intermuscular cellular membrane. Though the wound occasioned by the operation healed readily by the first intention in both these cases, it was nearly a year before either of the men was able to handle his musket. For a long time, also, changes of the weather occasioned severe pains and feebleness of motion in the limb. An examination of the extirpated tumors sufficiently explained the cause of these evil consequences, by demonstrating that the parts removed consisted of the altered structure of the muscles themselves.

"By the extirpation of the tumor in both the above-mentioned patients," says Dr. Richter, "I was enabled to investigate the nature of the excised mass, and to convince myself of my error in supposing it to be a parasitical growth, or osseous deposition in the cellular membrane between the muscles. The operation itself removed my first impression, and an examination of the textures of the tumors led to a different conclusion. External examination had induced me to believe them of smaller dimensions than I afterwards found them to be; for they reached even to the humerus, without however adhering to it, and their chief extension was in the direction of their depth. After extirpation, their magnitude was found to equal that of a moderate-sized hen's egg, and their greatest circumference at their middle was from four to five inches. At both ends, but especially the lower, they were produced to a point, and their long diameter was from four to five inches. The surface was uneven, and here and there beset with hooks. The muscular fibres adhered closely to the whole, entered into the solid substance of the mass, and could be separated only with difficulty. At particular parts the surface was invested with a tendinous membrane, which seemed to be traversed by muscular fibres. When the surface was cleansed from all adherent substances, it appeared rough, and not like that of a bone. After the extirpated tumors had lain some time in spirit, they appeared smaller, and somewhat shrunk. The weight was not proportionate to the bulk, for the smaller mass weighed, after this time, ℥ij. ℈i., and the larger ℥v. gr. xxx. The consistence of the two was not similar; the larger was harder, and required a saw for its division; the smaller might be divided, though with some effort, by means of a sharp knife. An examination of their substance shewed that it was not homogeneous; the foundation was of muscular substance, which exhibited itself very manifestly in their texture and colour, and in particular parts had a silvery and tendinous, or rather fibrous appearance. In the midst of these longitudinal muscular and tendinous fibres, I found a hard, bony, and porous substance much resembling pumice-stone, but harder, and which might be compared to the dense texture in the ends of long bones. No cellular structure, nor the presence of any substance resembling the marrow of the bones, could be detected in the texture of this new product."

"The hook-shaped bodies on the surface were connected with the bony mass by a tendinous substance, and were movable."

Experience being unfavourable to the extirpation of such tumors, our author recommends a discutient plan of treatment.

If the swelling of the shoulder be still inflammatory, the disease recent, and the induration small, leeches are to be applied, followed by cooling lotions. When the redness has disappeared, mercurial ointment is to be rubbed in, and a mercurial plaster applied during the night. If the disease be further advanced, the inflammatory stage already passed, and the tumor free from pain, friction with mercurial ointment, and stimulating liniments, may be had recourse to from the beginning. The Ung. Hydriod. Potass. is also applicable to this stage of the disease; in which benefit is also to be derived from the continued irritation of blisters and the tartar-emetic ointment.

The success of this treatment is various: applied in the early stage, it will generally effect a complete cure. If the disease be of long standing, and the tumor have attained the size of a walnut, it may generally be diminished, though not entirely got rid of. In some cases, when the tumor is diminished to a certain point, the patient recovers the free use of his arm: in others, where the tumor is so large as to reach nearly to the coracoid process, this fortunate result is not to be hoped for, and the man becomes incapacitated for further service.

The first two papers in this volume are the most worthy of attention, as containing information in some measure new: our notice of the rest must be more cursory.

In the essay *on the Sanative Process of Nature in Intro-susception,* the author gives an excellent view of the manner in which the invaginated portion of intestine is separated and cast off. A case is also introduced, in which, when the patient appeared to be at death's door, a sudden amelioration of the symptoms took place on the expulsion of a portion of the small intestine, forty inches in length; and a perfect recovery ensued.

The subject of the next paper, *Chronic Rheumatism of the Elbow-Joint,* obtruded itself most disagreeably on our author's attention, by taking up its residence in his own elbow for thirteen years. Dr. Richter enters fully and judiciously into the treatment of this affection; but, when all is said that can be said, nobody knows what chronic rheumatism is; and, what is worse, we fear nobody knows how to treat it.

Our author's remarks on the *Interstitial Absorption of Bones* are well worthy of perusal. We can here give little more than the heads of the subject.

1. Of interstitial absorption as a general disease, arising from some constitutional malady.

This may be called *tabes ossium,* an affection on which surgical writers have hitherto bestowed little attention. It is characterized by diminution of the volume, or attenuation of the substance of the bone, and occasionally by both. It occurs superficially, or in the inner texture; and, especially when local, sometimes occasions a solution of continuity. It may present itself throughout the whole osseous system, in the bones of a single limb, or in individual bones, or portions of bones. In cases where one half of the body is crippled, the bones of that half are sometimes thus affected.

The disease is most usually confined to a single bone, and the destruction of substance may proceed from within outwards, or *vice versâ*. In pathological museums we find bones which surprise us by their extraordinary porosity, thinness, and levity. Our author has seen calvariæ so thin as to be transparent, and long bones which had scarcely any weight, and consisted only of an external lamina no thicker than paper: the outer surface was smooth, of a shining white, and not porous; the inner surface was rough, and the cancellated structure so completely obliterated, that the bone resembled a hollow tube. The prominences to which the muscles had been attached were scarcely perceptible. In the broad bones, the cancellated structure seemed to be more subject to absorption than the outer shell, and the destructive process was frequently considerably advanced before it became evident externally. This absorption taking place in the parenchyma of the bones, and thereby increasing their porosity, has been called rarefaction of the bones, osteo-porosis, or osteo-spathyrosis, of which fragility of the bones is a symptom. This consumption of the bones rarely occurs as an idiopathic affection, and, where it is the consequence of any other constitutional disease, it is, of course, accompanied with the peculiar symptoms of that disease.

The general causes of this malady enumerated by our author are—

1. Old age.
2. The great class of tabid diseases.
3. Crippling of a limb or one half of the body.
4. Syphilis, and mercurial cachexy.
5. Scrofula.
6. Gout.
7. Rheumatism.
8. Scurvy, cancer, and herpetic cachexy.

II. Of interstitial absorption as a local disease arising from pressure.

The causes which operate in its production are—

1. Aneurisms.
2. Fungous tumours of the brain, and its membranes.
3. Tumours in the nose and antrum maxillare.
4. Hydrocephalus.
5. The attrition of the act of chewing with a jaw that has lost its teeth.

6. The action of the muscles in various curvatures of the spine.

7. Contusion of the bones.

8. Some other mechanical causes.

III. Of interstitial absorption as an exertion of the sanative power of nature.

This is exemplified—

1. In the healing of fractures, where inequalities in the bone are removed by the action of the absorbents.

2. In the restoration of the medullary structure in the seat of the fracture, the cavity for containing the marrow being, for several months after the reunion of the fracture, obliterated by bony matter, which is afterwards removed by the absorbents, and the natural structure restored.

3. In the diminution of the quantity of callus.

4. In the removal of portions of bones by the saw, as in amputation; the sharp edges of the truncated bone being removed by the absorbents, the cavity filled up by new deposition, and the end of the bone brought into a rounded form.

5. In necrosis.

6. In the formation of new articular cavities in cases of unreduced dislocation.

7. In the changing of the teeth.

Of the cases which constitute the sixth paper, two afford examples of inflammation of the diaphragm; in the one instance rheumatic, in the other, consecutive on softening of the brain: these we would gladly extract, but that they are too diffuse.

The two concluding papers are excellent of their kind, affording an useful compendium of the observations and opinions of authors on two interesting subjects: since, however, they contain comparatively little original matter, we shall not protract this article by any quotations from them.

In conclusion, we beg to recommend all these tracts to the attention of those of our readers who are conversant with German: they are the production of a well-informed and judicious physician.

The Anatomy of the Human Eye. By John Dalrymple, Assistant Surgeon to the London Ophthalmic Infirmary.— London, 1834. 8vo. pp. 294; Plates.

A good monograph on the structure of the eye has for some years been a desideratum in our medical literature: the investigation of this organ constitutes a separate department of anatomy, and cannot be satisfactorily conducted within the limits of an ordinary anatomical system, or an introduction to a pathological treatise. The principal materials for such a work must necessarily be derived from the labours of preceding authors, but the task of collecting and weighing their statements and opinions is, if judiciously performed, one of considerable difficulty and great utility: the subject also still affords sufficient scope for original observation in some of its minuter details. Mr. Dalrymple has shewn great industry and judgment in the collection of his materials, and has taken nothing upon trust, but has been careful to verify or correct the statements of other anatomists by his own observation: he has also introduced several interesting descriptions and ingenious opinions of his own. We give one or two extracts merely as specimens of the work. The following is our author's account of the foramen of Soemmering.

"In the description of the sclerotic, I had occasion to notice the lamina cribrosa, and the point where the optic nerve enters, as not being placed in the direct centre of the eye; or, in other words, not in the exact axis of vision, but being rather to the inner or nasal side of the organ. If the globe of a recent human eye be divided by a transverse section, and, whilst immersed in water, the vitreous body along with the anterior section be removed, the posterior portion of the retina will be brought into full view; which, notwithstanding the delicacy of its texture, will remain undisturbed, and fairly exhibit the lateral entrance of the nerve. From this point we at once trace a small elliptical fold, that extends transversely to the very axis of vision; where is observed in its centre a small dark spot, not perfectly round, but rather oval, like the fold in which it is placed; it is also slightly depressed, and surrounded by a yellow circumference. This spot is what Soëmmering discovered, and described as the 'foramen et limbum luteum,' and which, during several years, was considered peculiar to man: but Cuvier has since remarked it to prevail in some of the genus, 'quadrumana:' and by Dr. Knox it has subsequently been observed in the eyes of certain lizards, and in the chamelion; the last mentioned author has denied the appearance of a fold in the human eye, and treats its existence only as a post-mortem result. I however believe the fold to be essential to the formation of the dark-coloured spot described by Soëmmering.

"A contrariety of opinions has existed in reference to this point. The illustrious author of the discovery, by the very name he has applied to it, considers it as a real aperture, surrounded by a yellowish coloured circumference; while Blumenbach attributes to it an expansive and contractile power, for the purpose of regulating, under certain circumstances, the admission of rays of light. Sir C. Bell denies the existence of a real foramen, the apparent aperture being produced by the transparency of the retina at this point, while its remaining portions become uniformly opaque. Blainville, in his Principes d'Anatomie Comparée, though generally correct in his description of this appearance, falls, I believe, into a similar error: 'Un petit enfoncement plus ou moins ovalaire, translucide au milieu, autour duquel se plisse un peu la rétine, qui l'on remarque dans cette membrane, en quelque distance en dehors de l'entrée du nerf optique, dans l'axe meme du globe de l'œil.' For myself, I am disposed to think that the existence of the apparent aperture in question may be explained on other grounds than that of the transparency of the central spot. I have remarked that it is not, as Soëmmering has represented it, a perfectly circular point, but that its figure is oval, corresponding in this respect with the plica, in the centre of which it is placed: this is also stated by Blainville. This fold is formed by a duplicature of the retina, or rather by the union of two minute plicæ, united at their respective extremities, and leaving a depression between them in their centre. Their extremities thus joined extend on the one side to the entrance of the optic nerve, while on the other, or temporal side, they are lost by expanding into the general surface of the retina: the extreme length of these folds is about one and a half lines, in breadth nearly one line. This appearance I have repeatedly observed in the human eye when immersed in water, as I have already described. If the subject under observation be carefully frozen, and neatly separated by a vertical section through the centre of the folds, it will be still more distinctly shewn, and exhibit the central depression, consisting of a single layer of retina only; whilst the folds, consisting of two portions of membrane doubly opaque, and standing out in relief, throw it into shade, the dark pigment behind, adding a still greater depth of colour, increases the effect of the shadow.

"This conclusion is still further sustained by the appearances exhibited by a preparation in my possession, in which, by long immersion in dilute spirit of wine, the central depression has partially unfolded, shewing the continuity of the retina between the folds as perfectly opaque as in any other portion of its surface. The yellow circumference, or 'limbum luteum,' has been also blanched by the spirit, a result, as to colour, equally produced on the grey matter of the brain by long continued immersion.

"The opinions which I have here ventured to submit to the profession are the result of dissections made six years ago, the vouchers for which I still retain in the preparations then made:

they have been confirmed by recent and continued examination of this point; and, as the inspections afforded me, on these occasions, were made under circumstances the most favorable, as regarded the recent state of the organ, I am led to speak with increased confidence of the nature of the appearances described in the preceding paragraphs." (P. 75.)

Mr. Dalrymple makes some remarks on the discovery of Dr. Jacob, who, it appears, does not understand the mystery of his own membrane: Is it wonderful, then, that others should have been slow in apprehending it? nay, that some heretically-disposed persons should have started doubts whether it were anything or nothing?

"Dr. Jacob," observes our author, "does not assert the identity of this membrane with serous tissues in general, although some confusion may arise from his likening it to the lining membrane of serous cavities. It is also evident, that the discoverer believed it to be a single membrane. From observations made on the human eye, in connexion with other experiments on the eyes of animals, I am induced to consider it as *a double reflected serous membrane*." (P. 95.)

The following, according to Mr. Dalrymple, is the true anatomy of the membrane in question.

"At the point of entry of the optic nerve this delicate tissue first commences; it proceeds concentric with, lines, and is attached to the internal surface of the choroid, as far as the ciliary circle, and 'ora serrata;' thence doubling on itself, it is reflected upon the outer surface of the retina, to which it is loosely adherent, forming that exquisite structure first observed and described by Dr. Jacob: in this way it proceeds back to the optic nerve, where it is again continuous with the portion lining the choroid. The latter portion, or the choroidal reflection, wheresoever it comes in contact with the pigment, is stained by it, though it does not allow the colouring matter to transude. Thus, instead of its being a single layer, I think we are enabled to establish, that it is a double and reflected tissue, forming a closed sac, and presenting the peculiarities, anatomical and physiological, common to all such membranes as line serous cavities.

"Certain morbid conditions of the eye would seem to point out the existence of a serous membrane at this part, and of these the most remarkable is a peculiar form of 'gutta serena,' mentioned by Mr. Ware and others, who, in several instances after death, have observed a fluid effused between the choroid and retina. The former gentleman, by puncturing the sclerotic and choroid in some cases, gave immediate relief by removing the pressure on the retina produced by this morbid accumulation. In some rare instances the retina has been found ossified; and Meckel is of opinion, that Jacob's membrane is the seat of this affection. Ossification of serous textures does not unfrequently occur in other parts of the body; as, for instance in the pleura costalis, in the pericardium, on the peritoneal surface of the spleen, &c. It is also sometimes observed on the arachnoid surface of the dura mater. I know of no well authenticated instance, in which the medullary matter of the brain has been converted into bone, although I believe a rare case of ossified brain has been somewhere recorded.

"A disease which in its early stage bears some resemblance to fungus in the eye, presents a confirmation of the existence of this serous tissue: hitherto these cases have been described as effusions of lymph from the internal surface of the choroid. Is it not more probable that such effusions have arisen by secretion from a serous surface?" (P. 99.)

This work is a valuable contribution to anatomical literature, and we strongly recommend it to the student of ophthalmic surgery.

Leçons de Clinique Médicale, faites à l'Hôtel-Dieu de Paris, par le Professeur A. F. Chomel; *recueillies et publiées sous ses yeux*, par J. L. Genest, D.M.P., ancien Chef de Clinique Médicale de l'Hôtel-Dieu de Paris, &c. *(Fièvre Typhoïde.)* —Paris, 1834.

Lectures on Typhus Fever. By Professor Chomel.
8vo. pp. 548.

We trust that, before many years have elapsed, it will be considered discreditable for a hospital physician not to have contributed his portion (or, if he cannot do that, his mite,) to the improvement of the practice of physic. The neglect of this duty might indeed be palliated, if medicine were one of the exact sciences, replete with undoubted facts, and logical deductions from them; but, as the matter stands, with doubt staring us in the face on every side, it is strange that any one should enjoy unlimited opportunities of observation and experiment for fifteen or twenty years, and yet have nothing to communicate to his less fortunate brethren. When a neighbour makes an excursion into Worcestershire, we do not wish him to write his travels; but, when the African Society send a picked man into the land of depressed crania, we expect an account of the prodigies he saw: and is not rheumatism more mysterious than Timbuctoo, and the course of fever more puzzling than the course of the Niger?

The volume before us shows that Dr. Chomel is not to be numbered among the *malingerers:* indeed, the large size of this book, giving an account of only a few years' practice in a single disease, would rather seem to demonstrate that reviewers are necessary evils, and that they are absolutely required as middle-men between author and reader.

Before we begin our abstract, we must mention an important circumstance. We concluded, from the title-page, that Professor Chomel was the sole author of this book, and that Dr. Genest was merely his shorthand writer, or amanuensis; but, when we had toiled on to page 509, and had arrived at the second paragraph of the seventh section of the seventh article, we were startled by the following note: "Ce paragraphe et l'article suivant appartiennent entièrement à M. le Professeur Chomel." We shall continue, however, to call Dr. Chomel the author, but with a slight mental reservation. We must also premise, that what the author calls *fièvre typhoïde* we call typhus fever: but that he appropriates the term *typhus* to the typhus gravior, or jail fever, exclusively.

Professor Chomel divides typhus fever into three stages, each of which lasts about a week.

Symptoms of the First Stage. The most usual symptoms at this period of the disease are headach, which comes on at the very commencement, and appears in almost every case; prostration of strength and stupor; diarrhœa, meteorism, and sensibility of the abdomen, especially in the right iliac region; a gurgling noise on pressure of the lower half of the abdomen; epistaxis; and, lastly, the eruption generally called typhoid eruption, which, however, scarcely belongs to this stage. If the patient should be able to sleep, his short repose is accompanied by painful dreams, which leave a lasting impression, and are confounded with his waking state, so that he thinks he has not been asleep at all: this state is called by pathologists *coma vigil.* The headach is very intense for the first week, but almost always yields at the end of this period, and sometimes sooner, to the remedies employed; but it generally lasts longer if nothing has been done. Our author does not think the colour of the tongue important as a diagnostic mark, but insists strongly on the almost constant presence of diarrhœa: some patients have one, and others fifteen or twenty liquid stools in twenty-four hours, but the most common number is from four to eight. Out of fifty-four cases in which the typhoid eruption was observed, there were but two in which it appeared during the first stage. It is very unusual for patients to die during this period. Among forty-two deaths from typhus fever in the clinical ward, but one occurred at the end of the first stage.

Symptoms of the Second Stage. It is generally about the seventh or ninth day from the first attack that the eruption appears which is peculiar to typhus fever, consisting of small rose-coloured spots, which disappear on pressure, from half a line to two lines in diameter, round in shape, and hardly, if at all, raised above the skin: they are scattered over the abdomen, and sometimes over the chest, and are rarely found on the thighs, arms, or forearms. These small spots are more easily distinguished in proportion to the whiteness of the skin, and are sometimes made out with difficulty in dark-coloured persons. Their number cannot be determined, because they are not all equally visible; but, in order to characterize a typhoid affection, there must be at least fifteen or twenty: if there are but two or three, nothing can be inferred from their presence. The importance of these lenticular spots has been denied, and it has been asserted that they are produced by the action of cataplasms, baths, and fomentations on the skin of the abdomen. This is obviously an incorrect explanation; for the poor rarely employ these remedies, and yet, out of seventy patients, twenty-nine had this eruption when admitted; and, moreover, it often appeared on patients in the hospital when the fomentations, &c. had not been used.

These lenticular rose-coloured spots can easily be distinguished from petechiæ and flea-bites, because in the latter kinds there is an extravasation of blood on the surface of the skin, and their colour, instead of being diminished by pressure, becomes apparently more vivid by the diminution of colour in the surrounding skin. In the typhoid spots, on the contrary, the redness disappears just as it does in erysipelas, where there is evidently congestion of blood, and reappears when the pressure ceases.

In this stage, too, occur the small vesicles called *sudamina;* ulcerations on the surface of the body, and an almost total loss of the contractile power of the muscles. This debility of the muscles sometimes extends to those which are employed in respiration, immediately endangering the life of the patient. The diarrhœa still continues, and sometimes there is hemorrhage from the intestines. The meteorism in some cases is considerably augmented, and reaches the degree of intensity to which authors have given the name of tympanitis. The abdominal pains, which are occasionally rather sharp during the first stage, disappear in the second, excepting in mild cases, where the patient preserves his senses and intellectual faculties unimpaired. Some patients die during the second stage, *i. e.* from the eighth to the fifteenth day. Of forty-two deaths in the clinical ward, nine occurred in this stage; that is to say, during the most acute stage of the disease.

Symptoms of the Third Stage. If the case is about to terminate in recovery, the more serious symptoms diminish in intensity. If the patient gives a quicker answer to questions, and his eyes are voluntarily turned towards the person who speaks, this first look of the patient, this expression of his physiognomy, showing that he is beginning to awake from the stupor, in which he was unconscious of all around him, is a certain sign of amendment. In other cases the coma becomes a quiet sleep, on awaking from which the patient has recovered a part of his consciousness. In the greater number of patients their movements are easier, and the difficulty of swallowing is diminished; and, though debility is still present, the patient can move himself in a way that he could not have done two or three days before. The mouth and tongue become moist; the meteorism diminishes; and the stools become yellower, more solid, and less fetid.

In unfavourable cases the stupor increases, and the alteration in the expression of the patient's face becomes more obvious; the mouth becomes drier, or, if it is moistened, it is only with the secretion of a mucous liquid, of a grey and gluey appearance, with sanious striæ and a fetid smell. Sometimes it is black or opaque, and at others has the colour of pus. The respiration becomes more and more oppressed and stertorous; and in some cases, during the last days, a crepitus can be perceived, especially at the base and posterior part of the lungs, which is occasionally succeeded by an entire absence of the respiratory murmur.

Sometimes, too, a sudden and fatal termination of the case is produced by perforation of the coats of the intestines. In fifty-five fatal cases of typhus fever, M. Louis found intestinal perforation to have taken place eight times; but, in forty-eight fatal cases at the Hôtel Dieu, it occurred only twice.

Thirty cases were bled, and there was a firm crassamentum twenty-six times, contrary to the theory of those authors who maintain that, in serious cases of fever, the blood has always lost some of its consistence.

Post-mortem Appearances. We shall not enter into the minutiæ with which Professor Chomel has filled more than 240 pages, but content ourselves with two or three of the more prominent points. When a patient dies during the earlier stages of the disease, the intestinal glands (Brunner's and Peyer's) are sometimes found merely swelled, and of a deeper colour than the surrounding parts, but not ulcerated;

but, on the ninth or tenth day of the disease, the mucous membrane covering the *plaques gaufrés* begins to ulcerate. M. Louis, too, mentions but two cases in which he found the patches without ulceration, and there the patients had died on the eighth day of the disease. After the eighth day, he seems always to have met with ulcerated patches. When the patient dies at an advanced stage of the disease, Peyer's glands have altogether disappeared, and left nothing but ulcers to mark their place. When death takes place six weeks or two months after the first attack, the ulcers in the intestines are found to be partly healed.

These lesions are always or nearly always found, and form an essential part of typhus fever; but there are others which may be called accidental, such as redness, softening, or thickening of the mucous membrane of the stomach; enlargement of the spleen; and *ramollissement* of the liver. In almost every case the spleen is enlarged, and is frequently two, three, or even four times its natural size. The heart is often softened, and sometimes to such a degree that its muscular substance breaks down under the fingers. Our author says, that morbid appearances are rarely found in the brain, yet he gives the following table of the state of that organ in thirty-eight cases:

Injection of the membranes in 4 cases;
Œdema of the membranes in 7 cases;
General but slight ramollissement in 6 cases;
Effusion of serum in the ventricles, varying from a teaspoonful to a tablespoonful, in 12 cases;
Gritty state of the cerebral substance in 5 cases;
Anormal density in 2 cases;
Normal state in 15 cases.

Causes. The remote causes are unknown; but among the predisposing ones may be numbered youth, and recent residence in a great city. In 117 cases, where the age was accurately known,

8	were from	15 to 18	years old;
25	—	18 to 20	—
36	—	20 to 25	—
30	—	25 to 30	—
9	—	30 to 35	—
3	—	35 to 40	—
5	—	40 to 50	—
1	was	52.	

If we add to this table the results obtained by M. Louis, and other observers, we shall find that the disease rarely occurs in persons above forty years of age, and that perhaps there is not a case on record where the patient was above fifty-five.

The majority of typhus patients admitted into the hospitals have lived but a short time at Paris, as will appear from the following table of ninety-two cases, in which this point was ascertained with precision:

5 had been in Paris less than 1 month;
10 —— from 1 to 3 months;
9 —— from 3 to 6 months;
21 —— from 6 months to 1 year;
19 —— from 1 to 2 years;
15 —— from 2 to 6 years;
11 —— more than 7 years;
2 were natives of Paris.

Hence it appears, that sixty-four out of ninety-two, that is to say, more than two thirds, had been in Paris less than two years.

The puerperal state has likewise been considered a predisposing cause; but, so far is this from being the case, that typhus fever seems never to follow parturition. It must be recollected, that the anatomical characteristic of typhus is the lesion of the isolated or congregated follicles of the intestines, and of the mesenteric ganglia. Now, in 220 dissections performed by M. Tonnellé, at the Maternité, during the epidemic of 1829, among forty-four collected by Dr. Robert Lee, and a great number more reported in various excellent theses maintained at Paris for several years past, we have not found a single one, says Professor Chomel, in which the change in the glands of Brunner and Peyer, that we have described, is mentioned as having been found. Moreover, in fifty post-mortem examinations after typhus fever, published by M. Louis, and forty-four that took place at the Hôtel Dieu, there is not one case where the disease had followed delivery.

The section in which our author discusses the question whether typhus is contagious or not, is very sensibly written; but he concludes, as impartial physicians must do in the present state of the evidence, by declaring the point unsettled. It seems clear enough, however, that the vast quantity of miasmata generated in fever hospitals is sufficient to spread the disease; and hence it may be inferred, (if we may be allowed a mathematical mode of reasoning,) that a single case is capable of doing so likewise, but in an infinitely small degree.

Professor Chomel now gives a separate account of the various forms of typhus fever. There are five species; the inflammatory, the bilious, the mucous, the nervous, and the adynamic. We shall content ourselves, however, with giving one of his cases; it belongs to the first, or inflammatory form.

Twenty-seventh Case. Qurtrechy, a worker in ebony, aged twenty-two, living in Paris for the last four months, was attacked on the 21st of January, without any obvious cause, with want of appetite, weakness, and headach. He was obliged to keep his bed, and suffered from want of sleep, a slight cough, pain in his abdomen, and fever, with considerable heat during the night, and a sensation of cold during the day. The patient reported that he had vomited green and bitter matter, and had kept himself on low diet; but no other treatment had been adopted when he entered the St. Lazarus ward, No. 27, on the 25th of January, 1832.

On the sixth day of the disease, there was debility, with a difficulty of sitting upright. The patient had come to the Hôtel Dieu supported by two companions. His consciousness was perfect; his tongue moist, and whitish; the other symptoms were, thirst; slight pain on pressure of the epigastrium; meteorism; one liquid stool; an occasional cough; a weak and transient *râle sibilant* on both sides; the pulse full, and of moderate frequency; the skin moist; and the patient said that he had perspired a good deal that morning. The prescriptions were VS. ad ℥xij., a solution of syrup of gum, with twelve grains of chloride of soda; whey; a chloruretted enema, and chloruretted lotions.

Seventh day. The blood taken yesterday is not buffed, and is rather diffluent; the weakness continues, but the headach is less. Yesterday evening there was slight epistaxis; there is no sign of the typhoid eruption; the patient has had one liquid stool; the state of the abdomen is the same.

Eighth day. The eyes are still brilliant, and the skin hot; the pulse has almost lost its frequency; the weakness is still considerable; there has been one loose stool during the last twenty-four hours.

On the following days the patient continued to get better, but very slowly. Although no one of the local symptoms was intense, convalescence did not begin till the seventeenth day; and at an advanced period the patient had a very slight attack of ague, which disappeared under the use of an infusion of cinchona. Some days afterwards he complained of considerable pain in the region of the left kidney, which yielded to the application of ten leeches. He went out after having remained in the hospital six weeks. (P. 348.)

We pass over our author's observations on the diagnosis of typhus fever, partly because we think it is a disease which can rarely be confounded with any other one, and partly because there is nothing very new in his remarks.

Prognosis. There are few diseases in which the deaths are so numerous in proportion to the number of patients. Out of 147 cases of typhus admitted into the clinical wards of the Hôtel Dieu, from the beginning of 1828 to the end of 1832, forty-seven died, being nearly one in three. It would appear, however, that the great mortality at the Hôtel Dieu partly depends on its proximity to the *Bureau Central,* in consequence of which it is the receptacle chosen for the worst cases.

Out of seventy-three cases where the attack was sudden, there were twenty-six deaths. Out of thirty-nine cases with premonitory symptoms, there were twenty deaths. On which the Professor says, strangely enough,

> "La différence entre ces résultats est assez forte pour ne point être négligée; il est évident que le pronostic est plus fâcheux chez les sujets chez lesquels l'invasion a lieu d'une manière subite, et qu'au contraire, il est plus favorable chez ceux qui ont offert des préludes." (P. 433.)

It is obvious that the reverse is the fact, provided our author's figures are correct.

When a decided amelioration takes place, particularly from the tenth to the twentieth day, and the symptoms return after a short time with greater intensity, the termination of the case is almost always unfavourable.

Treatment. In the slighter cases of typhus fever, it is sufficient to prescribe cooling beverages, such as lemonade and orangeade, and linseed poultices to the abdomen, if it is painful; together with lotions of vinegar and water applied over the whole body; or baths, if the heat is great; mucilaginous enemata several times a day; cold compresses to the forehead when there is headach; and hot poultices, or even sinapisms, if there is a tendency to coma.

These remedies alone would generally be sufficient; nevertheless, it is useful, even in the slightest cases, to begin with a bleeding, whose first effect is to diminish the headach, and to hasten the approach of the period when it ceases. When the headach or the abdominal pain is intense, leeches may be applied; in the former case to the mastoid apophyses, in the latter to the anus. Our author treated a large number of cases with the chloride of soda, but, though at first his success was marked, subsequent cases seemed to show that the remedy had no especial efficacy. The majority took from fifty-four to ninety ounces daily of a solution containing a grain or a grain and a half of the chloride in an ounce, besides the use of lotions and enemata impregnated with the same substance.

This work certainly does great honour to Professor Chomel and the illustrious school of medicine to which he is attached; but it must not be considered as a treatise on typhus fever in general, but on the disease as it appeared in Paris from 1828 to 1832; for many of the symptoms mentioned by our author (such as the eruption and the diarrhœa,) cannot be admitted into a definition of the disease, as they by no means universally attend it. The book is certainly a large one; yet those of our readers who are not overwhelmed with occupation will do well to peruse it, for it is the production of a genuine observer, —a man enjoying vast opportunities of gathering knowledge, and possessing talent to profit by them.

The Transactions of the Provincial Medical and Surgical Association. Vol. II.—London, 1834. 8vo. pp. 546; coloured Plates.

The volume before us commences with an account of the first anniversary of the Society whose Transactions it contains. After this follows an address, by Dr. Barlow, and three essays on Medical Topography. The first is an account of the district of the Land's End, by Dr. Forbes; the second, by Dr. Carrick and Dr. Symonds, is on the Medical Topography of Bristol; and the third is an account of Stourport, in Worcestershire, and its neighbourhood, by Mr. Watson. It is with considerable reluctance that we pass over these interesting papers without extract or comment, but we must hasten on to matter more immediately practical. Dr. Forbes' essay is especially elaborate, and he promises another chapter, containing the medical history of the inhabitants of the district, on a future occasion.

Dr. Bardsley has contributed *Additional Facts and Observations on the Efficacy of Strychnine in some Forms of Paralysis;* his former remarks on this subject having been contained in the excellent work entitled "Hospital Facts and Observations," published four years ago. The author seems to us to be one of the few hospital physicians who are conscious of the vantage ground on which they stand, and of the comparative facility with which they might advance the progress of the healing art: had he many rivals, we should not have to regret that the improvement of the practice of physic does not keep pace with that of the auxiliary sciences, pathological anatomy and pharmaceutical chemistry.

After quoting the testimony of Dr. Elliotson and Dr. Graves in favour of the employment of strychnia in some paralytic affections, Dr. Bardsley says,

"My further experience with strychnia leads me to repeat, that it is in such cases of paralysis as seem to arise from diminished nervous excitement, that this remedy is particularly indicated;

and, generally speaking, that it is likely to prove more serviceable in paraplegia, unconnected with spinal disease, than in hemiplegia, though I feel confident that it will not unfrequently be found an important remedial agent even in hemiplegic paralysis, when the cerebral mischief is not very extensive, and the nerves are still capable of being acted upon by appropriate excitants. I can state, on the authority of facts occurring within the sphere of my own observation, and that of others, that strychnia has proved curative in cases of palsy of long standing, after the complete failure of the discipline ordinarily adopted in these attacks. The late Dr. Somerville, of Stafford, communicated to me an interesting case of paralysis of the hands, arising from the absorption of lead, in which strychnia removed the disease in less than a month. The patient commenced with the eighth of a grain twice daily, but at length took one grain within the same interval." (P. 202.)

Dr. Bright, too, speaks favourably of it; but observes, that "cases of hemiplegia from the rupture of vessels are not those in which this remedy holds the greatest prospect of success, though, with caution, it may be employed in the advanced stages of convalescence, with safety at least, and sometimes with benefit." Our author also quotes a very remarkable case, given by Dr. Gaskoin, in the Medical Gazette, in which "the patient, a boy twelve years of age, was incapable of moving the head, or any part of the vertebral column, from the place of support." The sulphate of strychnia was given in the dose of $\frac{1}{30}$, which was gradually raised to $\frac{1}{5}$, of a grain three times a day. A cure was effected in six weeks.

A case still more remarkable, if possible, was communicated to Dr. Bardsley in the spring of last year. A young lady, in the twenty-third year of her age, who was not able to walk more than three or four miles without a sensation of weakness and pain in the back, had a severe attack of remittent fever in the autumn of 1826. The dorsal debility increased rapidly, and by the end of May, 1827, she was unable to walk; in the succeeding years she went on from bad to worse, and, by the advice of Sir Astley Cooper and Sir C. M. Clarke, tried the usual remedies of cupping and counter-irritation, without any permanent benefit.

"The following account of her condition, on the 16th July, 1830, was drawn up by her regular medical attendant. 'She has now been ill nearly four years; she has entirely lost the use of her lower extremities, but their sensibility is natural, or rather more acute than usual; there is considerable pain across the loins, extending from one spine of the ilium to the other, and over the whole surface of the sacrum; there is also a diffused tenderness of the integuments of the same parts, and also at times much turgescence and a feeling of fulness; there is considerable weakness of the upper extremities; she sleeps but indifferently in general, in consequence of pain in the joints, particularly the ankles and wrists, which she describes to be a sensation as if the joints were separating by violent extension. The periodical evacuations are regular, and tolerably natural; there is, in the intervals, occasionally some leucorrhœal discharge, which is not continued, but appears in considerable quantity suddenly, and then ceases: it is thin and transparent. The appetite is bad, and almost every article of diet disagrees with the stomach, inducing a sensation of fulness and oppression; the bowels are very irregular, and the evacuations, generally, very slimy and unnatural in their appearance. She is subject to rather frequent attacks of increase of all the dyspeptic symptoms, attended with headach and foul tongue, at which time there is an aggravation of all her painful symptoms. She is just recovered from one of these attacks, and the tongue is now clean and almost natural in appearance; the pulse is eighty-one, weak, and easily accelerated." (P. 208.)

The next day, (July 17th, 1830,) Miss S. began the use of the strychnia, by taking $\frac{1}{12}$ of a grain once a day, and continued to take it in increased doses till the 6th of November. Nothing could be more satisfactory than the effects of the remedy. First, her appetite and digestion improved, and soon after the pain in the back diminished; on the 23d of August she could stand with the aid of her crutches, and on the 5th of October she could walk five or six yards, leaning on her brother's arm only. The improvement continued after the medicine had been left off; and in May, 1831, she was capable of walking slowly for an hour without much fatigue. The largest dose administered was $\frac{1}{3}$ of a grain three times a day.

This case, while it showed the advantage to be derived from the persevering use of this alkaloid, showed also with what extreme caution it must be exhibited; as one third of a grain, taken twice a day, was capable of producing convulsive twitchings, alarming both from their violence and their duration.

Dr. A. T. Thomson, who has used this remedy with advantage in the form of the acetate, supposes that strychnia does not influence the circulation in the brain, even when given in fatal doses. The following case, however, seems to show that this opinion is erroneous.

William Jones, ætat. forty-six, was admitted into the Birmingham Hospital, March 25th, 1831. He was suffering from hemiplegia of the left side of three weeks' standing. On the fifth day after admission he began taking half a grain of strychnia twice a day, and continued to do for five days, without any sensible effect. The dose was then increased to a grain twice a day, which at first produced spasmodic contractions of the muscles; but, as this dose gradually lost its power, and in a few days produced no effect at all, the patient was ordered to take a grain and a half every morning. The first dose, however, produced fatal opisthotonos, the death of the patient taking place three hours and three quarters after the administration of the strychnia.

"*Post-mortem Examination, seven Hours after Death.*—April 16, 1831. External appearances: The fingers were firmly contracted, and the muscular system, generally, was in a state of spastic rigidity.

Brain: A considerable quantity of limpid blood flowed from the division of the scalp; the vessels of the dura mater were also turgid with dark-coloured blood. The arachnoid membrane was opaque and thickened throughout all its inflections, but particularly at the base of the brain. The basilar artery, and the arterial circle of Willis, were somewhat diseased, and spotted with atheromatous deposition. In the right corpus striatum there was an apoplectic clot, dark coloured and grumous, of an irregular figure, and in bulk about the size of a very large walnut. The substance of the brain, in contact and in the vicinity of this clot, which was clearly of previous formation, was in a state of ramollissement in several parts. The lateral ventricles contained about f.℥iss. of yellowish serous effusion. The other parts of the brain were healthy.

"The spine: The investing membranes were found in a highly vascular and injected state; the pia mater was of a florid redness, and everywhere congested with arterial blood; there were four recently extravasated patches of blood between this membrane and the arachnoid, which was also thickened and opaque, as in the brain. These patches were situated opposite the last dorsal and the two first lumbar vertebræ; and in the lowermost a distinct coagulum could be recognised. The spinal marrow itself was healthy. It is also to be regretted that the thorax and abdomen were not examined, owing to the interference of the friends of the deceased." (P. 218.)

Dr. Booth, the narrator of this case, then gives the post-mortem appearances in two dogs killed by strychnia, showing that this poison causes congestion of the brain, contrary to the common opinion, which supposes its action to be confined to the spinal cord.

After giving a number of other successful cases, which we must reluctantly pass over, Dr. Bardsley has some observations on the external use of this powerful alkaloid. He says,

—"I wish particularly to direct the attention of the profession to the external application of strychnia in that obstinate form of paralysis of the levator palpebræ superioris muscle, occasionally the drooping or falling of the upper eyelid, by which the eye becomes totally or partially closed. I have met with three examples of this kind, in which strychnia sprinkled on a blistered surface, established immediately above the orbit of the eye, has been productive of great benefit. It is proper to commence with the application of one sixth of a grain night and morning, progressively increasing the quantity to half a grain or a grain at the same intervals. The employment of galvanism may be advantageously combined with the application of strychnia in these cases." (P. 237.)

We cannot, however, resist the temptation of extracting the table giving the result of the employment of strychnia in paralytic cases, in the Manchester Royal Infirmary, since the year 1830. The internal dose was generally from one sixth of a grain twice a day, to half a grain three times a day. The quantity employed externally was from one fourth of a grain to two grains, sprinkled on the blistered surface twice a day.

In the following tables, I.P., O.P., and H.P., mean respectively in-patient, out-patient, and home-patient.

"*Table of Cases of Hemiplegia treated with Strychnia.*

No.	Name.	Age.	Duration of Complaint.	Disease.	Result.
1	John Johnson, O.P.	30	Two months.	Hemiplegia of left side	Cured.
2	Mary Harwood, I.P.	43	Two years.	Ditto.	No benefit.
3	John Beech, I.P.*	25	Ten months.	Hemiplegia of right side.	Relieved.
4	Eliz. Worsley, H.P.	58	Sixteen mths.	Ditto.	Little benefit.
5	Thos. Walton, I.P.†	57	Two months.	Hemiplegia of left side	Relieved.
6	Jane Macguire, I.P.	42	One month.	Ditto.	Cured.
7	Owen Connor, I.P.	33	Four months.	Ditto.	Relieved.
8	James Brown, O.P.	60	Two years.	Hemiplegia of right side.	No benefit.
9	Alice Burns, O.P.	33	Six months.	Hemiplegia of left side	Greatly relieved.
10	Mary Kelly, I.P.	39	Three months	Ditto.	Cured.
11	John Royle, H.P.	61	Sixteen mths.	Ditto.	No relief.
12	Charles Astley, O.P.	29	One year and a half.	Hemiplegia of right side.	Cured.

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* "Beech persevered in the use of strychnia for more than three months after he was discharged from the hospital, and, when I last saw him, he had almost entirely recovered the power of the right side.

† "Walton died suddenly in the course of two months after quitting the hospital. He had not taken any strychnia during that time. On post-mortem examination the basilar artery was found in an ossified state, and a large clot of blood was detected on the medulla oblongata."

Table of Cases of Hemiplegia treated with Strychnia.

No.	Name.	Age.	Duration of Complaint.	Disease.	Result.
13	Mary Brion, O.P.	59	Two years.	Hemiplegia of right side.	Little amendment.
14	Jos. Medcalf, O.P.*	33	Thirteen wks.	Ditto.	Cured.
15	Susan Scott, I.P.†	60	Six months.	Ditto.	Little relief.
16	James Ingham, H.P.	39	Two months.	Ditto.	Cured.
17	Patrick Dillon, I.P.‡	48	Three years.	Hemiplegia of left side	No benefit.
18	Mary Furbar, O.P.	43	Six weeks.	Hemiplegia of right side.	Cured.
19	Jonath. Jones, I.P.§	60	Two months.	Ditto.	No benefit.
20	Cath. Davis, H.P.	28	Thirteen wks.	Hemiplegia of left side	Much relieved.

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* “Medcalf continued the use of strychnia for more than thirteen months. During the last three months, the paralytic limbs were galvanised each night and morning.

† “This patient died in a short time after her discharge from the hospital, with symptoms of cholera.

‡ “Dillon was very inattentive to the directions given to him by myself and our intelligent house apothecary, Mr. Lloyd; and I have reason to believe that, on several occasions, he deceived the nurse with respect to taking the strychnia pills.

§ “In Jones's case, many remedies had been previously employed, and with a similar unsatisfactory result.”

“*Table showing the Results of the Combined Internal and External Use of Strychnia in twelve Cases of Paraplegia.*

No.	Name.	Age.	Duration of Complaint.	Disease.	Result.
1	Jane Brown*	13	Seven months.	Paraplegia.	Cured.
2	John Edwards.	53	One year.	Ditto, incomplete.	Relieved.
3	Sarah Jackson	16	Six months.	Complete.	Cured.
4	Thomas Pollitt	24	Thirteen mths	Ditto.	Cured.
5	Isaac Sampson†	60	One year.	Ditto.	No benefit.
6	Timothy Smith	39	Two years.	Incomplete.	Greatly relieved.
7	Mary Walsh	45	One year.	Complete.	No benefit.
8	Joseph Chadwick	36	Six months.	Ditto.	Cured.
9	John Christie	32	Nine months.	Incomplete.	Relieved, but afterwards became hemiplegic.
10	John Burgess	35	One year and a half.	Complete.	Relieved.
11	Sarah Higgison	48	Four years.	Ditto.	No benefit.
12	John Ellison	33	Nine months.	Ditto.	Much relieved.

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* “This girl was brought to the infirmary from a distance of more than sixty miles. She had been under the care of a very eminent surgeon, who had previously tried the usual remedies, but without benefit.

† “This man had led a previous intemperate life, and his constitution was much shattered.”

"*Table showing the Result of the External Application of Strychnia in eight Cases of Palsy of the Wrists from Lead.*

No.	Name.	Age.	Duration of Complaint.	Result.
1	William Roberts ...	40	Three months.	Cured.
3	Thomas Bennett ...	36	Six weeks.	Cured.
3	James Constantine	29	Three weeks.	Cured.
4	John Logan	40	Two months.	Relieved.
5	William Hays	32	Six weeks.	Ditto.
6	Thomas Dane	54	Three months.	Ditto.
7	Charles Wood	23	One month.	Cured.
8	Richard Cranshaw...	39	Nine weeks.	Cured.

"Both Logan and Hays recovered the entire power of the wrists in the course of a fortnight or three weeks after leaving the hospital. I received no further information respecting Dane." (P. 238.)

There is a paper on *Chronic Peritonitis*, by Mr. EDWARD THOMPSON. He acknowledges the extreme difficulty of the diagnosis, but says that there is one symptom which he has never known to be absent, viz. "a feeling of uneasiness on descending a stair, or stepping from an elevation." Should this be confirmed by other observers, the diagnosis would be extremely easy; but, until this is the case, we hope that no one will adopt the method of treatment recommended by our author, which is neither more nor less than the regular British panacea, or all-heal—salivation, to wit. Were this paper destined to make an impression on the medical public, we should fear the rise of a peritoneal sect, as there formerly was an hepatic one, by whom patients were "put through long and ruinous courses of mercury, without any benefit." (*Abercrombie on Diseases of the Stomach, &c.* second edit., p. 345). Dii tale avortant omen!

Mr. JAMES DAWSON has given *the History of a Case of Lithotomy by the Rectum,* which is sufficiently interesting to induce us to present our readers with a large portion of it.

"Robert Cox, nearly three years and a half old, of diminutive form and sickly aspect, was admitted into the Liverpool Infirmary in January, 1832.

"The history of this child's sufferings, during the past six months, was detailed by his father, and it was sufficiently distressing to lead to the belief of the presence of a stone in the bladder. After a few days of repose the sound was passed, but no calculus could then be detected. The urethra was found to be short and very narrow, admitting, with difficulty, the smallest instrument. The bony outlet of the pelvis was deformed; the space left between the conjoined pubic and ischiadic branches being narrowed to a degree I had never before witnessed; this space, by admeasurement, not exceeding one third of an inch; the course of these branches, to within one quarter of an inch in front of the anus, was nearly parallel; from this point into the tuberosities their divergence was abrupt, leaving ample space for the anus itself." (P. 301.)

After remaining in the hospital a few weeks he was sent home, but returned in five months.

"His mother had entirely neglected him; she had allowed the anus to remain in a state of prolapse nearly all this time, so that the exposed mucous membrane had acquired a deep purple tint, was beset with excoriations and ulcerations, and presented, altogether, a very menacing appearance.

"Some pause was necessary, in order to bring the part into a condition to bear any future exploration.

"Taking advantage of a tranquil state of the rectum, I passed the finger, when its point was abruptly met, about half an inch within (or beyond) the fibres of the sphincter ani, by a bulging downwards, in a pouch-like form, of the upper wall of the rectum, through which membrane could be felt, but not very distinctly, the outline of a solid, and hence, probably, a foreign body, of about the size of a large Spanish olive, which appeared to be firmly seated in its novel situation.

"The bladder was forthwith sounded, when the instrument struck against a stone. The foreign body sustained by, and felt through, the medium of the anterior wall of the rectum, was hence satisfactorily identified with the calculus just detected in the bladder. Here, then, was an instance of sacculated stone. It is useless to inquire whether the pouch was a congenital, or an accidental formation. One thing seemed to be certain, viz. that, owing to the extreme narrowness of the bony outlet, the calculus was inaccessible by the usual lateral operation; indeed, I feared, at one time, it might be so by any other route." (P. 302.)

It was now determined to operate by the rectum, as soon as the state of his health would allow of it. The agony he suffered in passing his urine, though unrelieved by large doses of various narcotics, yielded to the introduction, at stated intervals, of an elastic gum catheter, which had been made to retain its curve without the wire. In order to prepare the rectum for the passage of the urine, astringent and sedative injections were at first employed, but were found to be worse than useless. The injection of cold water twice a day was then tried, with great benefit, for it cured a chronic diarrhœa to which the child had long been subject. The operation was performed in January, 1833, in the following manner.

"He was bound by no ligatures. The nurse supported him on a pillow on her lap, in the usual position. A gum-lancet, having its anterior edge rounded and very keen, was laid flat on the finger, which, thus armed, and oiled, was introduced through the anus, so as to reach a point a short distance beyond the recto-vesical pouch, when its edge was turned upwards, and a decided cut made, by drawing the instrument from behind, forwards, in the median line, through the walls of the pouch, and up to the stone, on the hard surface of which the edge of the lancet was distinctly felt to grate.

"I may mention, that the back part of the blade of the instrument was blunted, which allowed the point of the finger to project beyond it, and which was thus at liberty to direct, as well as to execute, the intended incision. After pausing a few moments, to allow time for the retraction of the divided structures, the finger was again passed, when the calculus was felt to be entangled among a mesh of elastic fibres; hence a second section became necessary, in effecting which the speculum was employed.*

"The calculus was now found seated in the upper, or vesical region of the sac, whence, having been displaced by the finger, it fell into the rectum, from among the valvular folds of which, after eluding the attempt once or twice, it was finally withdrawn by the help of Pellier's double silver wire, which served the purpose of scoop and lever. No blood was lost. The operation lasted nearly five minutes.

"The calculus was found to be much smaller than we had been led to expect. I have omitted to state that, during the operation, a quantity of hardened or dried mucous escaped, along with the fæces, through the sphincter ani; it resembled, in form, the peeled skin of a small apple, and it struck us, at the moment, that this substance might have been coiled round the lower moiety of the concretion, something after the manner of the cup of the acorn, and might, in this way, have added to its apparent magnitude.

"The child passed two liquid stools on the day of the operation, in each of which a clot of blood was found, equal in quantity to about two drachms. He passed a very tranquil night. During the four succeeding days the evacuations from the rectum were chiefly made up of urine. About this period of the after treatment, 'Clot Bey' visited our Infirmary; he expressed great interest about the child, but he gave me no hope whatever of the ultimate closure of the communication between the two outlets. A very slight degree of tenderness was detected on pressure, at the lower part of the abdomen, on the second day after the operation, but this was very promptly and properly treated by the house surgeon, Mr. Simon, and no more was heard of it afterwards. On each succeeding day two liquid motions were passed, the urinous admixture being always perceptible in them; the anus, however, remained free from the slightest appearance of excoriation.

"And now was experienced the benefit of the sphincter ani.

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* "The employment of this instrument was productive of great torture to the child; and, as the degree of stretching to which the mucous membrane was exposed by its presence was undesirable in every point of view, it was instantly withdrawn."

The control exercised by the fibres of that muscle kept him clean and dry. It was only when the desire to empty the bowel came on with too much suddenness and urgency to allow time for the bed-pan to be placed under him, that his bedclothes or body-linen were at all stained by the excretions.

"On the tenth day from that of the operation, to my surprise and delight, I found he had passed his urine, to the amount of four ounces, in a full stream through the penis; it was voided without pain, or straining, or spasm. After this, no urine was ever detected in the evacuations.

"The calculus, twenty-four hours after extraction, and spontaneously dried, weighed just sixty grains. A few particles had been separated in the operation. It consisted, externally, of ammoniaco-magnesian-phosphate. The internal part, where seen, consisted of phosphate of lime." (P. 307.)

This poor child was allowed to remain in the Infirmary for six months, and died, a few days after leaving it, of the pestilential cholera.

MR. GRINDROD has communicated a case of *Hydrophobia.*

"Thomas Pitt, æt. six and a half, was, on the morning of Monday December the 2d, 1833, bitten over the left eye by a rabid dog. The parents of the boy immediately washed the wounds, and took him to a public institution, where, however, no decisive measures were pursued. No further notice was taken of the boy until, upon hearing of the circumstance, I called upon the parents, on the ensuing Wednesday, and, with their consent, excised the parts, and afterwards applied a strong solution of caustic. The boy called at my house frequently afterwards, in order to have the excised parts dressed. They soon healed.

"On the morning of Wednesday, January the 8th, the boy appeared in his usual health playing with his associates. About two o'clock in the afternoon he attempted to drink some water, but, on elevating the vessel to his mouth, he trembled, and declared he could not drink any. This circumstance did not excite the suspicion of his parents, who attributed it to the effects of the cold water on the teeth." (P. 311.)

The nature of the disease soon became manifest, and the child died early in the morning of January 11th. The following were the more remarkable post-mortem appearances:

"The mucous membrane of the trachea, immediately before its bifurcation, was highly vascular. The submaxillary and sublingual glands were much enlarged.

"On opening the pharynx, it was evident that this part had been much affected during life. The greater portion of its inner surface was intensely inflamed, and terminated in a defined line opposite the cricoid cartilages. The velum pendulum palati, uvula, and most parts of the pharynx, shewed considerable development of the mucous glands. The tonsils were slightly enlarged. The œsophagus was greatly inflamed near its termination, and in one part the mucous membrane was slightly abraded. The whole mucous membrane was so softened, that the slightest touch of the scalpel separated it.

" *Abdomen.* The stomach was remarkably contracted and completely empty. Intense inflammatory patches were seen on the rugæ, which were very much developed. The mucus was very thick, and had, in some parts, an unusually deep colour. On one of the rugæ was observed a dark spot, about the size of a small shot. The stomach appeared healthy between the rugæ, but had, in some places, a darker colour than natural. The mucous membrane of the duodenum displayed intense inflammation also, and the glandulæ solitariæ were exceedingly enlarged, and very numerous." (P. 325.)

The bitch was dissected by Mr. Jordan, who found the following appearances:

"The lungs were of a very rosy colour, but their structure was healthy. The quantity of mucus in the bronchial tubes was small. The mouth healthy but very parched. The whole of the pharynx was of a deep rosy colour, which terminated in a defined line immediately opposite the cricoid cartilages. The larynx was healthy. A considerable vascularity was manifest at the lower part of the œsophagus, and was continued into the stomach. On opening the stomach, a mass of substance was observed, which had certainly the external appearance of a bird's nest. On being separated, it was found to consist of straw, wood, leather, &c. These materials were in a remarkably dry state. Upon being removed, the mucous membrane was found to be covered, in many parts, with a tough mucus. The rugæ were particularly manifest, and upon their surface were observed, here and there, intense inflammatory patches, and, in other parts, black or dark brown streaks, which, in a few hours, became still more perceptible. The external surface of the stomach seemed to be healthy. The par vagum and nerves of the tongue were perfectly healthy. The salivary glands were of the usual colour and size." (P. 326.)

Mr. Prichard relates a very remarkable case. A lady, aged sixty-eight, who was supposed to be suffering from renal calculus, passed a large biliary concretion by stool, in November, 1828. She had previously been under our author's care, and again sought his advice in May, 1829. From this time till her death, in September, 1830, she laboured under so perplexing a multitude of symptoms, that the diagnosis was difficult, if not impossible. Under the date of February 16th, 1830, we find it stated, that, " on examining the back, a tumor was discovered in the region of both kidneys; that on the right side being circumscribed, and much more elevated than that on the left: on both sides, but more especially on the right, a pulsation, synchronous with that of the radial artery, was clearly perceptible, and I find in my note the following question, 'Aneurism, or abscess with pulsation communicated?' Whilst these tumors, especially that on the right side, went on increasing, the power of moving the limbs daily improved, and the general health remained stationary." (P. 344.)

Large purulent discharges from the bladder afterwards occurred, with temporary relief: on one day two ounces of pure pus were passed. The following was the solution of some of the difficulties.

" *Post-mortem Examination, twelve Hours after Death.* The general appearance of the abdominal viscera, *in situ*, natural.

" The stomach contained a quantity of dark fluid, by which it was much distended.

" The spleen was very small.

" The liver was unnaturally small and very pale, except in the neighbourhood of its anterior edge on either side of the suspensory ligament, where it was pretty much coloured by bile. On a cursory examination, it was difficult to discern any thing like a gall bladder, but, on further investigation, this organ became evident, in the form of a semi-cartilaginous membrane, puckered up into several elevated folds, within one of which a small gallstone was lodged. No bile, nor appearance of bile, could be detected in any part of this membrane. The cystic duct, of a natural size, proceeded downwards, from a portion of it, and its internal coat was deeply tinged with bile. The hepatic duct was natural, as were the pori biliarii and the ductus choledochus. The right kidney, much enlarged, weighing twelve ounces, formed the external tumor. Its adipose and cellular investment adhered firmly to it, and the lower and back part of which shewed marks of recent inflammation, being, in its thickened state, inseparable from the organ itself. The renal arteries, veins and ureter, were healthy, excepting that the latter contained curdy pus. A section of this kidney exposed a mass of extensive disease, the centre of which had a firmly gelatinous character, and was intersected by white bands. In other parts the appearance was tubercular, more or less advanced to a state of ramollissement; its superior portion, from which the discharges of curdy purulent matter from the bladder proceeded, was in a state of suppuration.

" The left kidney weighed four ounces, and was tolerably free from disease, excepting that, on its surface, a small hydatid had formed.

" The bladder, small and very much thickened, contained about ℥iss. of thick fœtid urine, mixed with the curdy pus from the right kidney.

"The aorta, where it passed over a considerable protuberance of the spine, firmly adhered thereto, and its external coat was inflamed in patches, and, in parts, firmly ossified.

"A considerable protuberance presented itself about the last dorsal and first lumbar vertebræ, and the psoas muscles, on either side, bulged out laterally. On removing this portion of the spine, and examining it, it appeared that the spinous processes of the last dorsal, and the first and second lumbar vertebræ, were separated from their bodies, and partook of the morbid changes surrounding them. The first lumbar vertebra was converted into a soft carious mass, having partially the same character of tubercular ramollissement as the kidney. The dura mater, in the vicinity of this mass of disease, appeared healthy; on opening it, the medulla spinalis had evident marks of recent inflammation, and the pia mater investing it and the proceeding nerves were much injected. On removing the psoas muscles, several tumors, as large as a walnut, appeared, closely attached to the spine, two on one side and one on the other, having the same character of scrofulous tubercle as the other diseased parts." (P. 345.)

How and when the gallstone passed into the bowels was a question not resolved by the dissection, and must be considered a curious problem in pathology.

Mr. Watson gives an account of a case of *Uterine Hydatids.* The patient was twenty-two years old, and had been married ten months. There were several discharges of hydatids, followed by a flow of blood from the uterus, which, after resisting medicine, yielded to injections of port wine and water. The patient's recovery was perfect.

We are indebted to Mr. Thomas Davis for the account of a case which is probably without a parallel. A boy accidentally shot himself, driving a piece of stick three inches in length between the third and fourth ribs on the right side, where it disappeared. He survived the wound thirty-seven days, and, on examination, the stick was found in the right ventricle of the heart, incrusted with a thick coagulum as large as a walnut. There was neither wound nor cicatrix, either in the heart or pericardium. Mr. Davis supposes that "the stick, after wounding the lung, passed into the vena cava, and was carried by the stream of blood, first into the right auricle, and then into the right ventricle, where it became fixed."

Mr. W. F. Morgan, late house-surgeon to the Bristol Infirmary, gives the method of *reducing Dislocation of the Shoulder* practised in that institution. It invariably succeeds in recent cases, of which Mr. Morgan saw at least 150, as pupil and house-surgeon. The following is the method recommended.

"As soon as the patient is seen, and the nature of his injury ascertained, he is placed sideways on a common chair, with the dislocated arm hanging over its back, which is padded for the reception and support of the axilla. A reel-towel is then fastened on the arm, immediately above the condyles, by a running noose, with the knot outwards; and its lower part is formed into a loop some way above the ground, to receive the foot of the surgeon. One or two assistants press on the shoulder, much in the same way as Mr. Toogood advises, to fix the scapula and prevent the patient from rising, and the surgeon puts his foot, or, occasionally, his knee, into the loop of the towel, and gradually and unremittingly bears on it with the whole weight of his body. In a very little time, generally within three or four minutes, the head of the bone slips into its place with an audible jerk; the patient's sufferings are moderate, and of short duration, and the use of his arm is soon restored." (P. 362.)

Dr. Ward has communicated *Observations upon Cholera, as it appeared in Wolverhampton and its Neighbourhood, in August, September, and October*, 1832. This is a sensible paper, and evidently written by a practical man, but does not contain much matter that would be new to our readers. Dr. Ward speaks highly of Dr. Stevens's method, but thinks croton oil the best remedy in the stage of collapse.

In the *Observations on the Peculiarities of the Diseases of Infants and Children*, by Dr. J. K. Walker, we find the following passage:

"There is reason to believe that the uvula may, from various causes, be in a state of hypertrophy and relaxation, so great, as to keep up a constant irritation, and, in the opinion of Baron Larrey, even to occasion actual suffocation. I have seen, in many instances of laryngeal affections in adults, the most decided relief follow the removal of a portion of the uvula, which, by its elongation, was a source of continued irritation. In one such patient, I had the pleasure to find an almost immediate amendment in the cough, as well as other symptoms; and, no doubt, cases occur, where this state of the uvula has often been overlooked, and the cough and other symptoms have been attributed to a chronic disease of the larynx. It will sometimes happen that, in epidemic fever, accompanied with sore throat, the uvula is the first part affected, projecting into the rima glottidis, and threatening instant suffocation, In such cases the breathing is embarrassed, the voice extinguished, and the deglutition impeded. Yet, have not such symptoms occasionally occurred, without the real source of the mischief being even suspected? A case of this kind is recorded by Baron Larrey, where excision of the uvula gave instant relief. The patient was threatened with immediate suffocation, and, on inspection of the throat, the uvula was found drawn down into the rima glottidis, to the extent of nearly half an inch, by the act of inspiration. By its removal, perfect freedom was given to the respiration, and the patient was extricated from impending asphyxia." (P. 408.)

There is nothing so new, say the French, as that which has been forgotten. Many of the unpleasant symptoms arising from affections of the uvula have been described by that vigorous but somewhat affected writer, Aretæus: in his chapter *Περι των κατα κιονιδα παθων*, he says, for example, *Πνιξ δε επ' αυτεοισι πασι, και ἥκιϛα ρηιδιως καταπινȣσι· Βηξ επι πασι μεν, μαλιϛα δε επι τοισι Ιμαντιοισι, και επι τοισι Κρασπεδοισι. γαργαλισμος γαρ της αρτηριης απο των ὑμενων γιγνεται· εσθ' ὁπη δε και ενϛαζει τι τον ὑγρȣ λαθρη ες την αρτηριην, ὁθεν αναβησσȣσι. Επι δε τῃ Σταφυλῃ, και τῳ Κιονι, δυσπνοια ετι μαλλον, και καρτα πονηρη καταποσις. κ. τ. λ.* (P. 8. Ed. Wigan.)—*i. e.* in all these affections there is a sense of suffocation, and the patients swallow with great difficulty; in all there is a cough, but particularly in those called *Himantion* (strap) and *Kraspedon* (fringe): for the trachea is irritated by the membranes, and in some cases moisture drops into the trachea, and causes coughing. But, in the affections called *Staphyle* (grape) and *Kion* (uvula), the dyspnœa is still greater, &c.

Dr. Walker gives three interesting cases, in one of which enlargement of the liver, and in the others obscure abdominal diseases, were cured by the hydriodate of potass. The ages of the patients were eleven, three, and two and a half.

Mr. E. A. Jennings has contributed *an Attempt to ascertain, by Experiment, the exact Differences between the Changes produced in the Lungs of Stillborn Children by their Artificial Inflation, and those produced in the Lungs of Stillborn Children by Natural Respiration.*

Our readers are well aware of the test proposed by M. Beclard, who asserts that, when the lungs of a stillborn child float, in consequence of artificial inflation, the air may be squeezed out of them, and they will then sink. Our author gives seven experiments, all of which go to confirm the truth of this ingenious test. When the child had been stillborn, and the lungs artificially inflated, the lungs could always be made to sink, by compressing them. When the child had breathed, it was impossible to effect this, without completely mashing the lungs. In one very curious case, where the child had breathed imperfectly for half an hour only, the right lung floated, and the left lung sank, with the exception of a small part about its root.

There is another test, proposed by Professor Brent, and quoted by our author. It is as follows:

"'In the fœtus, the arterial duct proceeds from that part of the trunk of the pulmonary artery where it divides into two great branches, and running parallel with the arch of the aorta, and in contact with it, joins it at a very acute angle. If the child has breathed, even for a few moments only, the aperture by which the duct enters the aorta becomes oval; and, afterwards, the diameter gradually, but rapidly contracts at the aortal end, so that the vessel forms a cone, with its base towards the pulmonary artery. If the child has breathed several hours, or days, it resumes its cylindrical form, but becomes all much contracted and shorter; so that, from being equal in diameter to the pulmonary trunk, it becomes intermediate between that and the pulmonary branches, or, even, not larger than the latter. If the child has lived above a week, it is wrinkled, and no thicker than a crowquill, while the pulmonary branches are, at least, as large, and the pulmonary trunk as thick as a goosequill." (P. 438.)

On this point the author says,

"Before respiration the arterial duct is of equal diameter throughout its course, considerably larger than either of the pulmonary branches, and nearly as large as the pulmonary trunk.

"As far as these experiments go, they fully confirm the above statement, which corresponds with what Professor Brent states upon the subject.

"6th. After respiration has been established, the arterial duct becomes conical, the apex of the cone being towards the aorta; it is also considerably smaller in size than the pulmonary trunk, and one or both of the pulmonary branches will be found, in diameter, nearly equal to, if not exceeding it.

"In experiment 7, where respiration had evidently existed in one lung only, it will be observed that one pulmonary branch had increased in size, while the other remained much smaller than the ductus arteriosus. Imperfect as the respiration was in this case, yet the conical form of the duct, and the right pulmonary branch being as large as the duct, showed the changes effected by respiration in these parts with sufficient clearness to leave no doubt on the subject of its having taken place. My observations do not accord with Professor Brent's on the appearance of the orifice at the termination of the ductus arteriosus in the aorta. He states that if a child have breathed but for a few moments, the aperture becomes oval. I have not been able to satisfy myself on this point. In experiments 1, 2, and 3, when respiration had not taken place, it was impossible to say whether the aperture were round or oval; and in cases where it had existed, I have found the same difficulty in deciding on its form. Until respiration has existed for some time, when the aperture becomes puckered, (as in experiments 5 and 6,) I confess my inability to decide on the form of the opening, from the facility with which it may be made to assume either a circular or oval shape." (P. 454.)

We are surprised that he should say, "that from the moment that respiration commences all the blood of the body circulates through the lungs," (p. 452;) for the foramen ovale is usually open for some days after birth, and it is reasonable to suppose that blood passes through it.

Mr. Jenning's paper deserves attention, and we trust that his experiments will be repeated by other physiologists.

The *Reports of the Birmingham Infirmary*, and *Eye Infirmary*, are well drawn up; but the length to which this article has already extended will prevent our giving any account of them.

The volume concludes with *a Memoir of Dr. Darwall*, equally remarkable for its clear and graceful style, its sound common sense, and the lofty generosity of its sentiments. We are indebted for this specimen of what biography should be to that accomplished physician, Dr. Conolly.

We recommend our readers to add this volume to their libraries: some of the papers are immediately and practically useful, and others will supply the philosophic practitioner with ample materials for thinking.

Principles and Illustrations of Morbid Anatomy; adapted to the Elements of M. Andral, *and to the Cyclopædia of Practical Medicine, &c.* By J. Hope, m.d., f.r.s., Physician to the St. Marylebone Infirmary, &c.—London, 1833 and 4. 8vo. Parts i. to x. pp. 248 and lxxxiv; with numerous coloured Plates.

In our second Number we gave a short notice of the seventh part of this beautiful work; but, as ten parts are now lying before us, we trust that we shall gratify many of our readers by giving them a brief abstract of the contents of the whole book.

The first two parts comprise diseases of the lungs, such as acute peripneumony, abscess, pleurisy, phthisis, pulmonary apoplexy, emphysema, bronchitis, &c. In these, as throughout, the plates are remarkable for their fidelity to nature, as well as their pictorial beauty. The 46th figure gives a good representation of ulceration of the fauces and epiglottis, with vegetations extending into the larynx, together with hypertrophy of the mucous glands and papillæ. We quote the case annexed to it, because it is short and pithy enough to have obtained the author a prize in Sparta.

"Case. Syphilis treated with excess of mercury." (P. xiv.)

The third part contains an account of the diseases of the heart; and we give Dr. Hope great credit for not having yielded to the temptation of dilating too far on a subject, on which his long and zealous researches must have supplied him with a superabundance of materials. The 54th figure, representing the appearances on dissection in a case of acute pericarditis, deserves especial mention. The patient was "a man in La Charité, who had protracted peripneumony, in the last stage of which pericarditis supervened, and was suspected by Chomel, four days before death, by the pulse becoming very irregular; this being the only well-marked symptom. The pericardium contained eight ounces of turbid, flocculent, yellow serum." (P. xvii.)

The fourth and fifth parts are dedicated to the diseases of the liver, and form a good compendium of what is known, and what is conjectured, on its physiology and pathology.

The sixth, seventh, eighth, and ninth parts are devoted to diseases of the alimentary canal below the diaphragm.

The following observations, taken from the ninth part, are ingenious and interesting, though we would not pledge ourselves to the soundness of all the theories contained in them.

" *Seats of Hypertrophy.* There is no part of the canal below the diaphragm in which hypertrophy of the submucous cellular tissue has not been observed; but it occurs principally in the parts most liable to chronic inflammation of the mucous membrane, namely, the stomach, the rectum, the colon, and the end of the ileum. Hypertrophy of the muscular coat is found principally where that coat is naturally of the greatest thickness, namely, in the pylorus and pyloric third of the stomach, in the cardia, the rectum, and the colon.

" Contraction of the pylorus is occasionally attended with enormous dilatation of the stomach, which has been known to reach even to the ossa pubis. (*Andral*, *Clin. Med.*) Under these circumstances the walls are sometimes attenuated, and sometimes of natural thickness. The dilatation arises from distension of the organ, by accumulations of food which cannot pass through the pylorus. After the lapse of several days, the stomach, distended to the extreme, relieves itself by disgorging its contents; and hence, says Andral, arise those vomitings, so remarkable for their extreme copiousness, which supervene from time to time, (every eight or ten days, for instance,) in individuals labouring under contraction of the pylorus. When the contraction proceeds from carcinomatous tumours, the vomiting ceases when ulceration of the tumour leaves the orifice free; but the symptom recurs in proportion as the tumour is regenerated. It occasionally happens that similar dilatation of the stomach takes place when the pyloric orifice is enlarged; an anomaly which is explained by the thickened walls of the viscus having lost their tonic contractile power; whence they allow accumulations to take place, as in an inert bag. When the pylorus is much thickened, a tumour may sometimes be felt externally; and, when the whole stomach is diffusely thickened and contracted, without forming any particular tumour, an unusual resistance is, in some cases, perceptible over the whole epigastrium.

In the small intestines, hypertrophy of the submucous tissues is rare, and it is generally confined to a particular spot, of small extent. Sometimes the symptoms of stricture are produced by it, and increase from time to time to those of strangulation, of which the patient, after several relapses, usually dies. The intermittent nature of the symptoms of strangulation is ascribed by Andral to temporary tumefaction of the mucous membrane of the contracted portion; but it is also certain, that the mere circumstance of distension of the gut above the stricture will, in contractions of a certain form, tend to close the passage; as, for example, in the stricture, fig. 177. In these cases the gut above the stricture is sometimes permanently dilated to three or four times its natural capacity.

In the colon, hypertrophy is more common at its two ends than in the middle; for the simple reason, that the mucous membranes and follicles are more subject to disease at the two ends. The thickening is in general attended with contraction of the gut; but sometimes the reverse takes place, and the walls, having lost their contractility, become dilated into a cyst with thick and hard parietes, forming adhesions with the contiguous parts, and presenting externally the feel of an abdominal tumour. (See case 105, by Abercrombie, on the Abdominal Viscera.)

Stricture of the rectum, or of the colon, (fig. 177,) is in general nothing more than hypertrophy of the submucous tissue (*a*, *a*,) succeeding to irritation and thickening of the mucous membrane itself.

"Condylomata around the anus are formed by hypertrophy of the submucous cellular tissue, covered with the thickened and more or less injected mucous membrane within the gut, and by the cuticle exterior to it. Fig. 179 represents a good specimen of the disease. The pale part, *a*, is a segment (about one fourth) of the sphincter ani: all exterior to it is a triangular portion of one side of the nates. The alteration sometimes consists of distinct rounded tumours, like hæmorrhoids, with necks narrower than their heads, as seen at *b*, *c*, *d*; in other cases there is only a diffuse, granulated thickening around the anus, as at *e*, where the diseased skin is a third of an inch thick; but most commonly this thickening and round tumours coexist, as in the present figure. The surface of the disease is highly vascular. During life the portion represented was universally red; but, after death, the blood gravitated away from the parts *a*, *c*, leaving them lead coloured, and stagnated in the large tumors, *b*, and other dependent parts, rendering them of an intense violet hue. On cutting them, blood oozed freely on pressure. When the thickened cuticle was peeled off, the surface had the granular appearance of a common wart, and the tumors grated like scirrhus, when divided with the scalpel. Sooner or later suppuration and ulceration take place, and the disease then assumes appearances often designated by the term *cancer*. In connexion with external condylomata, Andral once found similar globular bodies, of livid red colour, studding the whole internal surface of the rectum.

"Hypertrophy of the intestinal canal occurs most frequently between the ages of thirty-five and sixty-five, and is very rare between puberty and thirty-five. It is not uncommon in children between the ages of four and twelve, when of unhealthy constitutions, and subject to chronic diarrhœa.

"There is reason to believe that the blood-vessels and nerves of the intestinal canal may become hypertrophous (*Path. Anat.* ii. 86.) Hypertrophy of the lymphatic apparatus is a familiar affection; this being the nature of the enlargements of the mesenteric glands following protracted inflammation of the intestinal mucous membrane, as in figs. 154 and 155." (P. 213-216.)

The tenth part contains a short chapter on External Cancer, and the commencement of the account of diseases of the Uterine System.

Our imperfect list of the subjects treated of by the author, together with our long quotation, may give our readers some notion of the variety and extent of the topics discussed in this work. These Illustrations deserve great praise, yet there is a very serious defect in them: they contain too much of Andral, and Laennec, and Cruveilhier, and too little of Dr. Hope. The author will reply, that he gave us fair notice of his intentions on the title-page; but we must still rejoin, that we would rather that he had written a book substantive than a book adjective. However, had the author committed a hundred errors greater than this, the coloured drawings have merit enough to redeem them.

An Inquiry into the Principles and Practice of Medicine, founded on original Physiological Investigations. By G. CALVERT HOLLAND, M.D., &c. Vol. I.—London, 1834. 8vo. pp. 540.

No study is better fitted to teach men humility than that of medicine: affording unbounded scope for observation and for thought, presenting an object to which scarce any variety of knowledge is inapplicable, and opening a field in which every department of philosophy is cultivated with a common aim, it has been in all ages a favorite pursuit of the most gifted minds; yet to this hour it remains the most imperfect and unsatisfactory of the sciences. The seductive character of the pursuit, not less than its difficulty, has tended to retard its progress: and it has too often happened that active and ingenious minds, directed to a subject as delightful as it is interminable, have lost all severity of tone, and revelled instead of laboured. The "great principle of induction" has been talked of till it has become a cant, but it has been very little acted upon; and till facts, not the *inferences* which frequently go by that name, but plain unvarnished facts, universally admitted as such by all reasonable men, become the sole basis of medical doctrine, the science must remain conjectural, and the art empirical. It will no doubt be mortifying to see the limits of our science apparently contracted, instead of being enlarged; to see by far the greater portion of a vast fabric of thought melt into air, and to find ourselves in possession of only a small number of truths, as the mere foundation of a structure of much tardier growth; yet for this we must be prepared, if medicine is ever to approximate to the exact sciences. Many, we are aware, will maintain, that it is altogether incapable of such approximation, but this we do not admit: our knowledge will most likely always remain extremely circumscribed, but it may be exact as far as it goes; if it be otherwise, it is not knowledge at all. At present, indeed, medicine must be allowed to be the most conjectural of the sciences: but what has made it so? the habit of deluding ourselves with dreams of knowledge which we do not possess; the eagerness to generalise before a sufficient number of facts have been accumulated; impatience of the way, in short, and weariness of the labour. It is the desire to get on too fast that has made medicine a vague and unsatisfactory pursuit, and if we attempt, as we daily do, to arrive at truth in this science by roads which were never known to lead to it in any other, need we wonder at having to retrace our steps?

Medicine, as M. Magendie justly observes, is the physiology of the sick man; its basis therefore is the investigation of the healthy functions of the animal frame. This principle is not denied: but how much is it perverted in its application, and how many pathological theories are confidently reared on the most gratuitous suppositions as to the functions of organs or systems? It is needless to cite examples of this: the whole history of medicine is one great example.

Although the dependence of medicine on physiology is universally admitted, they have hitherto been little cultivated in any sort of philosophical connexion with each other: nor is this surprising, when we consider the extreme difficulty of placing their relations in a just light. With diffidence in entering on so arduous a subject, we subjoin a few remarks on some of the points which seem to bear most immediately and usefully upon it, premising that it is not our object to advance doctrines, but merely to throw out suggestions as a clue to experiment and observation,—the only true foundation for doctrine in this or any other science.

We may observe, in passing, that if those whose fertility of mind enables them to form new and ingenious conceptions would merely advance them as subjects of inquiry, instead of defending them as *theses,* and weaving them into baseless theories, they would confer a real benefit on science. All experiment implies some preliminary notion, some doubt to be resolved, or question to be decided; something, in short, to determine the course of investigation in one channel rather than another. Hypothesis in itself is good, and without it experiment could have no beginning: it is only when it usurps the place of fact and observation that it becomes an evil.

The Relation of the Nervous to the Vascular System. The obscurity of the causes which influence the action of the blood-vessels, and more especially of the capillaries, constitutes a difficulty which everywhere confronts us in the application of physiology to medicine. In all our reasonings, whether on general or local disease, it opposes an insurmountable barrier to our further progress. To this question, therefore, the attention of the physiologist should be assiduously directed; and we cannot help thinking that he might still derive very important aid from the researches of minute anatomy.

Daily observation demonstrates that the circulating system is strongly under the influence of causes which cannot be conceived to be immediately applied to it. The pulsations of the heart answer to a thousand impulses which can only be indirectly communicated; and the arteries, to their minutest ramifications, have their action increased, diminished, or altered, by causes equally remote, and which evidently do not reside in the mechanism of the vascular system, or the influence of the fluid which it circulates.

Our attention is therefore naturally directed to the nerves, as the great medium of sympathy, and the most obvious chain of communication between distant organs. Now, it is certain that the action of the blood-vessels cannot be materially under the control of the nerves of sensation and voluntary motion, because that of the heart continues after the removal of the brain and spinal marrow;* and that of the vessels of a limb remains unimpaired when both sensation and motion are destroyed by paralysis, or the division of the nerves. Again, it has been asserted, on good authority, that the fibres of the ganglionic nerves may actually be traced in the course of the principal arteries, till they become so minute as to elude the eye, affording every presumption that they still accompany the vessels to their minutest ramifications.* Supposing these observations accurate, how does the question stand? We have an organ whose function is to be assigned, and a function whose organ is to be discovered: we are all but certain, on the one hand, that local changes in the action of the minuter vessels do not arise from the mechanism of the vascular system itself, or the influence of the contained fluid on the vessels. On the other hand, if the use of the fibres of the sympathetic, interwoven with the coats of the arteries, be not to influence and regulate their actions, the utmost ingenuity cannot devise even a probable function for them. We ought therefore, by a further appeal to minute anatomy, to endeavour to ascertain whether the fibres of the sympathetic can actually be traced to the situation in which they are alleged to have been seen: if they can, there seems to be no reason why we should not adopt, with some confidence, an opinion which is corroborated by many striking phenomena of the living system, contradicted, as far as we know, by none, and whose evidence, though short of demonstration, would afford that strong degree of probability on which we are contented to reason in many other matters of at least equal importance.

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* Wilson Philip's Experimental Inquiry, p. 62.

Animal Temperature. This subject is obviously one of great moment in its relations to pathology. The two leading theories, that which connects the temperature of the body with respiration, and that which attributes it to the influence of the brain, have both striking, though not conclusive experiments in their favour; and the former is supported by an extensive and beautiful chain of analogies; yet we have little hesitation in stating our belief, that they ought both to be relinquished, because they are both manifestly incompatible with the facts of disease. Confront the chemical theory with the following cases related by John Hunter.

"Case I. A gentleman lying apoplectic, whilst in bed, would become suddenly cold, and as quickly would become extremely hot; and here there was no alteration in the pulse or breathing.

"Case II. A man lying comatose in consequence of injury to the brain, and breathing with only half his usual frequency, was yet extremely hot.

"Case III. A boy, who appeared to be dying, breathed so slow that twenty-three seconds elapsed between each act of breathing: the pulse was weak and very slow; the body of purple hue, the blood not passing often enough through the lungs to acquire its scarlet hue: he was very warm, though in the midst of winter, and in a room without a fire."—(*Parkinson's Hunterian Reminiscences*, p. 14.)

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* Vide, in particular, Copland, Notes to Richerand, p. 556.

These cases are not solitary; instances equally subversive of Crawford's theory occur continually in the course of ordinary practice, rapid alternations of temperature being observed without any change in the respiration at all commensurate with the effect produced; and where such effect cannot be connected, with any reasonable probability, with the state of cutaneous evaporation which is supposed to modify the influence of the other chemical causes.

Brodie's theory is still more obviously at variance with pathological and other facts: thus, in cases of injury of the vertebræ, where all the parts below the seat of the injury are entirely deprived of sense and motion by the interception of their communication with the brain, the temperature of these parts often remains perfectly natural. Again, children have been born without any brain, who nevertheless evinced no defect of animal temperature. Nor has the spinal cord any better claim to be considered as the source of vital heat, since complete paralysis of the nerves derived from it is frequently unattended with any diminution of temperature in the limb to which they are distributed.

The hypothesis of Sir E. Home, which refers the generation of animal heat to the ganglionic system, is worthy of considerable attention, though very feebly supported and reasoned on by its author. (*Quarterly Journal of Science*, vol. xx.)

The opinion of John Hunter, as far as it can be collected from his writings, was, that living parts had an inherent power of regulating their own temperature according to their necessities; an opinion which may be considered by some as a sort of begging of the question, but which has some very striking facts in its favour, and is perhaps, on the whole, less at variance with the results of observation than any which has succeeded it.

The subject of animal temperature is evidently one on which we are in want of more facts; these the patient researches of the physiologist may possibly supply, while the phenomena of disease will afford a good touchstone on which to try the validity of the conclusions derived from them.

General Anatomy. Bichat's doctrine of the tissues has been hailed as the dawn of a new era in medicine; but, whatever its future utility may be, it seems to us that the influence it has hitherto exerted on that science has been greatly overrated; so far, indeed, from forming the basis of any very important practical views, it has given birth to little else than generalizations whose accuracy is extremely doubtful. The phrase "properties of tissue" has got into current use, without perhaps any very definite idea being attached to it; in virtue, however, of the said properties of tissue, a certain similarity has been assumed to exist between the morbid conditions of the same texture in whatsoever part of the body it may be found; but we believe it may be correctly affirmed, that any such analogy is hitherto known to hold good only when there is a perfect similarity in the functions to which the given texture ministers.

Take, for example, the serous membranes: it is true that there is a remarkable uniformity in the pathology of these membranes throughout the body; thus, inflammation presents in all the same phenomena, it has the same terminations, is attended by the same kind of constitutional symptoms, and is affected in the same manner by therapeutical agents; but it is also true, that there is an almost perfect similarity of distribution and function among these membranes; they all line shut cavities, and afford a superficial covering to important organs.

Synovial membranes, again, present a like uniformity in their morbid conditions; but here also we have the same resemblance of distribution and function. All these membranes line articular cavities, whose surface they lubricate by the secretion of a similar fluid.

Many other examples might be adduced, which all go to prove the same thing; hence all pathological reasoning founded on properties of tissue is premature, since the analogies observed are found to be universally connected with uniformity of function; and there is no proof that they would hold good independently of such uniformity: no proof, for example, that a serous membrane, if conceived to line an excretory canal instead of a shut cavity, would retain its pathological similarity to the other serous membranes.

Upon the whole, then, it appears that the only pathological inference at present deducible from the doctrine of the tissues is, that, when the healthy functions of parts are similar, the derangement of these functions in disease will also be similar; a conclusion so obvious, that we do not require the assistance of general anatomy to arrive at it; and, if this study has in any degree furthered the progress of medicine, it has been rather by affording a convenient mode of classifying morbid appearances, than by throwing any additional light on the nature or results of morbid actions.

It has moreover unfortunately happened, that the too hasty generalization of the doctrine of the tissues has led to positive errors in pathology and false principles in practice.

The origin of these errors may, indeed, be traced to Bichat himself, the author who first reduced the facts of general anatomy to a systematic form. There can be little doubt that this distinguished physiologist borrowed his first ideas on the subject without acknowledgment from Andrew Bonn's treatise, "De Continuationibus Membranarum."

Bonn's views were purely anatomical, and related only to the continuity of surface in different membranous textures throughout the body. Bichat, adopting his facts, and adding to their number, observed that similarity of property frequently accompanied the continuity of surface; and hence appears to have prematurely adopted the notion that such correspondence was universal: the result was the classification of certain continuous surfaces as homogeneous textures which have in fact no right to be so considered.

Subsequent authors have not been slow in extending this error, for an instance of which we need go no further than mucous membrane, a texture very generally diffused, and of great importance in its pathological relations. The several membranes classed together under this denomination are frequently considered by medical writers as constituting a tissue which is nearly the same throughout the body; and a sufficient similarity is assumed in their diseases to be made the basis of practical precepts generally applicable to them. Now, so far is this from being the fact, that scarcely any two mucous membranes agree precisely in their external appearance, in their functions, in the influence of physical agents upon them, or in the phenomena and results of their diseased actions. Their functions are most diversified: in the stomach we find mucous membrane ministering to the secretion of a fluid different from all others; in the small intestines it forms an absorbing surface for the purposes of nutrition; in the cells of the lungs it forms a permeable web, allowing the access of the air to the blood; in the urinary bladder it lines a reservoir for containing a highly irritating fluid; in the urethra it lines an excretory canal; in the nose, mouth, and ear, it affords a surface for the distribution of the nerves of sense; and in the conjunctiva of the eye it constitutes the outward protection of a very delicate organ. Even the common secretion from which the mucous membranes derive their name is not similar in any two of them: we have, indeed, as Dr. Craigie justly observes, certain *mucous* membranes which secrete no mucus at all,* and whose very name is consequently a solecism.

Physical agents affect different mucous membranes in different ways; cold and damp air very frequently inflames the membrane of the nose, but has no such effect on that of the mouth; urine produces no effect on the mucous surface of the bladder, but would severely irritate that of the eye.

The phenomena and terminations of diseased action are dissimilar in different membranes of this class: thus, inflammation of the membrane of the nose is not attended with pain, but with a disagreeable sensation of heat, and, if not resolved, terminates in increased secretion of mucus, or secretion of pus without solution of continuity; inflammation of the lining membrane of the mouth occasions considerable pain, and never terminates in a secretion either of mucus or pus, but frequently in ulceration.

Notwithstanding all these diversities, which plainly show that mucous membrane is not one tissue, but many tissues, we find certain general precepts confidently given for the treatment of its diseases: thus it is a current maxim with many practitioners, that inflammation of mucous membranes does not bear bleeding well. This may be true of some of them, but it is most untrue of others: common conjunctival ophthalmia, for instance, not only bears bleeding well, but requires a larger use of this remedy than inflammation of the same extent in any other membranous surface throughout the body.

We cannot pursue the details of this subject further, but we think that all attempts to adapt the doctrines of general anatomy to medicine had better be laid aside till their applicability is better established, and the mode of their application better understood. There is a subject which may be considered as a branch of general anatomy which has received little or no attention, but from which some interesting conclusions might possibly be derived. We allude to an investigation and comparison of the properties of organised textures which are produced by morbid actions.

Morbid growths, considered in the mass, have indeed been the objects of much minute description; but the different textures of which they are composed,—the relation of these textures to each other, and to the healthy tissues which they more or less resemble, have never yet been subjected to scientific analysis. Morbid anatomy, in one sense of the term, is cultivated with sufficient diligence, but it is chiefly conversant with the *products* of destructive processes,—with the *debris* of the fabric, rather than the causes which led to its dilapidation; and hence its use is rather to localize disease than to explain it. But disease creates as well as destroys, and a careful comparison of the various forms of morbid organization, (in other words, a general anatomy of disease,) might perhaps be brought to bear advantageously both on physiology and pathology. To give an example of our meaning: a sinus is lined by a sort of membrane bearing more resemblance to mucous membrane than to anything else; the cavity of an abscess has a somewhat similar lining. Wherein do these membranes differ from healthy mucous membranes, or from each other? Has that lining the sinus any more resemblance to the membrane of an excretory canal than that lining the abscess? Questions of this kind are always worth proposing: it is true they may generally lead to nothing, but sometimes they may afford the clue to important investigations.

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* Elements of General and Pathological Anatomy, p. 660.

Having alluded to morbid anatomy, we may perhaps be indulged in a momentary digression on this subject. Important as the study is in itself, and indefatigably as it is followed up, we think it extremely doubtful whether its operation at the present moment is to advance or retard the progress of medicine. If it were philosophically pursued, there could be no such doubt; but it is too often most unphilosophically pursued. A great number of pathologists have fallen into an error as pernicious as it is unaccountable—the disposition to couple every disease with some change of structure; which will, in reality, be found to amount to nothing more nor less than the identification of all actions with those of the vascular system. The pathologists we speak of are aware of the fact that every organ is originally constructed by vessels; that its waste is occasioned and repaired by their action; that its form, consistence, colour, all its properties manifest to the eye or touch, depend upon such action: accordingly, when they find an organ changed in any of these properties, they justly refer the change to disordered action of the vessels; and when disordered vascular action has subsisted for a certain length of time, they rationally expect an obvious change in the structure of the organ. Now, if they would be content to trace and record the ravages of different degrees and kinds of disordered vascular action, wherever they are actually to be found,—in short, if they would describe what they see, and no more, they would be philosophically and usefully employed. But they are not content with this: they insist on change of structure as the necessary consequence of diseased actions, in which there is no reason to believe that vessels are immediately concerned. Thus, where there has been derangement of the intellectual functions, they must needs have induration, or softening, or other apparent change, in the structure of the brain;—if the sensibility of an organ has been for some time morbidly increased, they hold it impossible but that its texture must be changed; forgetting that there is no reason to suppose that the action of the vessels has any immediate connexion with the functions in question, that vascular action may be one thing, and nervous action another. A disease, say they, which cannot be seen, is no disease at all; and, if they cannot see what they want by the ordinary exercise of vision, they avail themselves of the grandest of all microscopes, a favourite notion; and thus, while professing to accumulate facts, they are merely torturing nature into a conformity with preconceived views, and justifying the saying, that there are in medicine more false facts than false theories. In consequence of this stupid error, (for such we really must call it,) many industrious persons are expending years of labour in seeking for what they will never find, or imagining what they cannot see.

The Origin of Diseases. The animal frame is evidently destined to pass through the successive periods of growth, maturity, and decay, and its organization is prospectively adapted to this course; so that, setting aside the influence of extraneous causes, there would be nothing to occasion a deviation from this natural progress, and the individual would live free of disease, and die when his organism was worn out, as is frequently observed to be the case in savages, and occasionally in civilised men. In a healthy animal body, then, we must seek for the origin of disease in the influence of extraneous agents, and among these our chief attention is naturally directed to such as are known to be most constant and most influential in their operation. But, again, it is obvious that only certain parts of the frame are immediately exposed to the action of these causes: the surface of the alimentary canal is liable to be irritated by unwholesome ingesta; the external surface of the body is exposed to the continual vicissitudes of heat and cold, dryness and moisture, and acted on, more or less, by all the physical changes of the atmosphere; many other parts, however, are not so exposed; no external agent, for instance, is immediately applied to the substance of the heart, none to the texture of the peritoneum; yet these parts become the seat of a variety of diseased actions. Is it not probable, then, that the origin of a great number of diseases is to be sought for in sympathy; the morbid cause acting immediately on the part to which it is applied, and affecting remote parts which consent with it according to laws which are most likely invariable, though hitherto undetermined? What a vast variety of remote diseases are known to originate in the stomach and intestinal canal, and what an impulse has the knowledge of this fact given to the theory and practice of medicine! May there not be a number of analogous facts equally important and equally applicable; and may we not, at this moment, be erroneously referring many diseased actions to sympathy with the digestive organs, which are in reality to be attributed to sympathy with other organs not less exposed to noxious agents, and exerting no less powerful and extensive an influence on the system at large? A patient, for example, complains of general languor, debility, and depression; he is somewhat emaciated; his complexion is sallow, and his appearance haggard; and all this without any local pain, or febrile affection of the system. We might at first be inclined to refer his symptoms to derangement of the digestive organs; but what if the tongue be clean, the appetite sufficiently good, the bowels regular, and the alvine excretions natural? We must seek for some other cause, and we may perhaps find it in a chronic affection of the bronchial membrane, indicated by an increased secretion, causing a degree of mucous rattle; and somewhat impaired respiration, without any evidence of disease of the pulmonary tissue. We are not imagining a case, but describing one of frequent occurrence. Now that such affection often arises from the local action of atmospheric causes on the bronchial membrane, is rendered probable by the fact that many persons are almost constantly subject to it in some localities, and perfectly free from it in others, their diet, habits, and other circumstances, remaining the same.

Again, a disturbed state of the general functions of the system may often be apparently traced to a dry and imperspirable state of the skin, which may originate from causes acting locally upon it, since the symptoms are sometimes most effectually relieved by remedies acting directly on the surface, as tepid bathing and friction. In applying this view of the origin of diseases, we should attend to the various organs which, from their situation, or relations to external agents, are most liable to injurious impressions: it should also be kept in mind, that some symptoms may arise from the sympathies between the exposed organs and distant parts, and others from the derangement of important functions exercised by such organs. We may adduce the following examples.

1. The whole range of the alimentary canal may be irritated by noxious ingesta; and here we have to consider not

only the sympathies of the several parts of this canal with distant organs, but the disturbance of the nutrient function which is essential to the whole system.

2. The respiratory passages may have their lining membrane affected by the qualities of the atmosphere; here we have to take into account not only the sympathies which may be exercised by these parts, but the insufficient accomplishment of those chemical changes in the blood which are necessary to the healthy functions of every organ in the body.

3. The surface of the body is exposed to the action of atmospheric and various other causes; and disease in distant parts may arise not only from sympathy with the cutaneous texture, but from the disturbance of its absorbent and exhalent functions, its influence on the capillary circulation; and, consequently, on the distribution of the blood.

4. The centres of the nervous system are continually impressed through the medium of the organs of sense, and the continuance of too intense excitement of any of these may thus become a source of disease; nay, it were easy to point out instances in which it manifestly is so.

We can by no means pretend to enumerate the various ways in which external agents may produce local impressions communicable by sympathy to distant organs; we merely propose the subject, which we think might yield some valuable results to patient and philosophical inquiry. The train of reasoning is exceedingly obvious, yet we are not aware that it has ever been followed up to any extent, or even that the conditions of the question have ever been distinctly stated.

In pursuing this subject, it would be necessary carefully to reconsider the various kinds of sympathy hitherto recognised by physiologists; to apply them where it is possible, thus extending the knowledge of their laws; and to ascertain whether there be any other kinds of sympathy which have as yet escaped observation.

Finally, it is to be remembered that, although many diseases may probably be traced to the physical causes above alluded to, there is little doubt that a host of others proceed from the operation of causes which are altogether hidden from us; which act on we know not what part, and may gain as easy access to one part as another; as contagions, of which we understand nothing but their effects, electricity, and many other things 'twixt heaven and earth, which are not dreamed of in our philosophy.

The Influence of the Mind on the healthy and diseased

Functions of the Body. This subject, though evidently one of vast extent and importance, has given rise to so little scientific investigation, that a man, in search of recorded facts connected with it, would perhaps find more to his purpose in the works of poets, painters, and sculptors, than in those of physiologists and physicians. The few works published on this subject, though creditable to their authors, and useful, as forming at least a commencement of inquiry, have been little attended to; and we believe we may affirm with truth, that the influence of the mind on the animal frame remains as an open and almost uncultivated tract, which may yield an ample recompense to those who have the boldness to enter, and the perseverance to explore it. That there are facts on this subject is obvious, that they may be capable of generalization, and afford useful inferences, is by no means impossible; at all events then it would be worth while to collect and record them.

We must however observe, that if this study is to be pursued with any prospect of success, the inquirer must divest his mind of a very gratuitous hypothesis, which has become so generally prevalent as to be regarded by many as a simple matter of fact; namely, that we are actually acquainted with the seat and organ of the mind. The ancients believed the heart to be the seat of the moral feelings, and the liver of the passions, conceits at which we now laugh; but, in assuming the brain to be the organ of the intellectual faculties, or that these faculties have any organ at all, we may, peradventure, be indulging in a conceit altogether as airy. A mind of philosophical training will not easily admit the truth of a doctrine which involves an utter incongruity between the cause and the effect; which attributes to the brain, a *material* organ, the production of thought, an *immaterial* result. All material operations, which we know to be such, whether the matter engaged in them be inert or organised, produce a result some way or other relating to matter: mechanical operations produce motion, by which matter is made to change its position; chemical operations produce changes in the sensible properties of bodies; the operations of organised matter also produce material results; muscular action causes motion, which may be measured like any other kind of motion; the action of the liver produces bile, which is a fluid, and has chemical and mechanical properties like all other fluids. But what are the products of the mind's operations?—ideas, various modes of thought and feeling. Now we should be glad to know what properties these have in common with matter; what is the colour of a recollection; what the specific gravity of a doubt; what the chemical properties of a wish? It is evident that there is not a single property in which any one mental product resembles any one material product.

Surely, then, it is absurd to attribute to a material organ results which have nothing in common with matter;—as absurd to suppose that the brain can produce thought, as that we could produce a brain by thinking of one; the absurdity in either instance consisting in an entire incongruity and want of relation between the cause and effect. The absurdity is the same as if one were to talk of producing sounds by adding numbers together: the two things have nothing whatever to do with each other.

We admit, however, that all this is but matter of opinion; not hesitating, at the same time, to state our own, that the doctrine of the brain's thinking is flat nonsense. All we contend for is, that a mere assumption, resting on no kind of proof, should not be allowed to influence a science, whose only legitimate foundation is in observation and experiment.

There are various other physiological subjects which have very important relations to pathology, as the influence of the several periods of development in the aggravation or correction of pre-existent diseases, and the production of new ones; the effects of the periodical changes which are observed to take place in the animal economy; morbid diatheses; hereditary predispositions to disease; and many additional topics, on which it would be much easier to exhaust the patience of the reader than to say anything at all to the purpose. The consideration of the action of remedies also forms an important part of the application of physiology to medicine; but, as all that can be said on this subject is comparatively familiar, we shall not further protract this article, over which it is more than probable that the gentle reader has already fallen asleep.

A New Synopsis of Nosology, founded on the Principles of Pathological Anatomy, and of the Natural Affinities of Diseases. By G. HUME WEATHERHEAD, M.D.—London, 1834. 18mo. pp. 90, and xxix.

DR. WEATHERHEAD says, in his introductory remarks,

"The author has found that he has been able, by following the natural affinities, to classify all the diseases resulting from the derangements proper to the body, spontaneous and incidental, under four principal heads. These form his classes: namely, the Phlogotici, or pure inflammatory diseases; the Hæmapharmatici, or those diseases which originate from a miasm, or poison, entering the healthy blood, and tainting it; thirdly, the Neurotici, which comprehend all those diseases arising from affections of the nervous system, unaccompanied by any apparent structural disorganization; while the last class, or the Vitia, comprises all accidental disfigurations, new morbid formations, extraneous lodgments, and congenital malformations." (P. xvii.)

Now, if for this barbarous term, Hæmapharmatici, we substitute Cachexiæ, and say Locales instead of Vitia, we shall have Cullen's four classes, which we prefer with the original names. In the various subdivisions our author is so much indebted to Dr. Young, that we could have wished to see some acknowledgment of his obligations. Surely there is a strong resemblance between the following species of Vulnus, as given by the two writers:

"Vulnus (a wound). α. Simplex. β. Laceratum. γ. Puncturatum. δ. Penetrans. ε. Contusum. ζ. Venenatum." (P. 73.)

"V. simplex. V. penetrans. V. laceratum. V. contusum. V. ablatitium. V. venenatum." (*Young's Medical Literature*, p. 407, 2d edit.)

Dr. Weatherhead does not follow the ancients in the genders of his words: thus, at p. 74, he makes *ulcus* masculine, and, at p. 82, *pes* feminine; but, at p. 81, this bold innovator ventures on a still more violent infringement of the *propria quæ maribus*, and actually makes *penis* feminine! Then, at p. 81, we have a mistake of the kind for which boys get their ears boxed at all well-conducted schools: *cor expers* is used to signify "heart wanting," *vesica expers* a "deficiency of the bladder," and so on. At p. 22, Dr. Weatherhead says, that *phrenitis* "is obviously a very improper name for any disease; since, according to the pathological meaning now attached to *itis*, it signifies *inflammation of the mind*." Poh! poh! Phrenitis signifies inflammation of the brain, and is one of the best names we have; for it is not one of the rickety, make-believe Greek words, manufactured by dictionary-hunters, but a genuine long-lived term, as old as the hills, and likely to last as long.

Yet we would not have our readers suppose that our author, though unskilled in verbal niceties, is altogether deficient in ingenuity; far from it. We approve, too, of his giving after each disease the usual sequelæ; and the following passage may show that, if Dr. Weatherhead will give up the arid study of nomenclature, in which he is far from happy, he may be infinitely more successful in other branches of medical knowledge.

"The pathology of jaundice, as at present laid down in books, is that it arises from the reabsorption into the circulation of bile that had already been separated from the blood, from an impediment existing somewhere to the transit of this fluid into the duodenum. Now, without insisting on the prodigious quantity of bile that would be required to tinge yellow so large a mass of an already deeply coloured fluid as the blood, it may be allowed us, in this place, to refer to the experiment of M. Magendie, who, when he injected only about two drachms of bile into the veins of an animal of the middle size, caused its death. Again, it may be asked, how comes it so frequently that jaundice shall occur, and yet no impediment to the free issue and discharge of the bile shall be found to have existed? Another circumstance deserving of recollection is, that bile is often seen to be separated in abundance from the blood by the kidneys, for several days *before* any jaundiced yellowness is perceptible even in the conjunctiva. And the last fact I shall notice, subversive of the doctrine of reabsorption, or of the necessity for it at all, is, that the experiments of Orfila, Chevreul, and Clarion, have established, that several of the immediate principles of bile, if not bile itself, exist naturally in the blood; and hence it would appear, that the office of the liver in separating this fluid from the circulation is not formative, but secretory, in the most literal meaning of the word.

"Premising these few remarks, we now can see why and in what manner jaundice may be produced, without having recourse to the improbable doctrine of reabsorption, against which a strong array of other circumstances militates. The liver ceasing its function of separation from any cause, the bile, or its immediate principles, thus accumulate in the blood; and, when this takes place, the author conceives several vicarious actions are instituted as suppeditories: the kidneys are made to strain off a large quantity of it; cases are on record where the salivary glands have secreted it in abundance; and the yellowness of the skin, he conceives, is entirely owing to the same suppeditory function being instituted by the exhalants that open on the surface of the body: hence we not unfrequently see the body-linen of a jaundiced patient tinged yellow." (P. 67.)

Hortus Medicus; or, Figures and Descriptions of the more important Plants used in Medicine, or possessed of Poisonous Qualities; with their Medical Properties, Chemical Analysis, &c. &c. By GEORGE GRAVES, F.L.S. &c., and JOHN DAVIS MORRIS, M.D. &c.—Edinburgh and London, 1834. 4to. pp. 274; thirty-eight coloured Plates.

THE figures of this work are beautiful, both in drawing and colouring; and the volume, on the whole, has a very prepossessing appearance. Hence we anticipated, on commencing its perusal, that our task would be one of unmixed praise. But, alas! human works, like human lives, are webs of mingled yarn; and, notwithstanding our prepossessions in its favour, we have been disappointed with the Hortus Medicus, because it has failed to realize those expectations which its titlepage and preface allowed, nay, led us to indulge.

The Hortus Medicus is declared to contain "*figures* and *descriptions* of the more important plants used in medicine or possessed of poisonous qualities;" and the preface informs us that "the expensive forms and extent of the modern works on Medical Botany induced the authors to attempt the present publication, in which such plants only are introduced as are in present use by British practitioners, or, from being endued with poisonous qualities, are likely to call for the attention of medical men, to remedy or alleviate their effects."

This all sounds very fairly, and the scheme is plausible. Looking at the voluminous medical Floras of Germany, and even those of our own country, (perhaps in some respects too prolix,) we should commend the publisher who would select "the more important plants used in medicine" from those of less value, or which have ceased to be employed, and give in their stead figures and descriptions of such as are "possessed of poisonous qualities." But then we should expect to have figures of *all* the more important medical plants, especially of those that are rare and *most* important; and the chief of the poisonous species, particnlarly the indigenous ones, should be also given. The want of this offends us in the Hortus Medicus; for, although between 180 and 200 species are mentioned, which, from their being selected and described, we presume have been considered as the more important and poisonous species, yet of these less than fifty are figured; so that the volume, instead of being a "*Hortus Medicus*," in the proper sense of the words, is rather "a compilation on materia medica, with figures of a few of the plants employed in medicine, or known as poisons."

In the next place, we come to consider the principles of the selection; and, when so few plants are figured, we of course expect they should be the *more*, if not the *most* important. Here, again, we are disappointed; for certainly *Papaver somniferum* is a more important officinal plant than *Papaver Rhœas*, and yet the latter is figured, and the former not. Again, why should the burdock *(Arctium Lappa)*, and the buck-bean *(Menyanthes trifoliata)*, and others of equal non-importance, have each of them a whole plate dedicated to their representation, while the *Laurels* (cassia, cinnamon, and camphor,) the *Peppers*, the *Tobacco*, the *Jalap*, the *Scammony*, the *Saffron*, *Ginger*, *Cardamom*, *Ipecacuan*, *Capsicum*, *Calomba*, *Cascarilla*, *Aloe*, *Rhubarb*, *Squill*, *Gamboge, Gentian, Hop, Nutmeg, Clove, Allspice, Ricinus, Smilax, Croton Tiglium, and Eleutheria,* &c. are omitted. We have every proper respect for the *Dandelion,* but we had rather have had figures of the different species of *Cinchona,* showing their leaves and flowers. We do not mean to detract aught from the importance of *Linum catharticum,* but we think it might well have given place to the *Senna.* Doubtless the *Bistort* and the *Mezereon* should have been figured; but then the whole of the *Pines* and the *Acacias* should not have been left out. It may have been very right to give representations of the common mallow *(Malva sylvestris),* and the black and white *Mustards,* with the broom *(Cytisus scoparius),* and two species of *Sium,* or water parsnep; but surely they are not more important plants as medicines, nor more fatal ones as poisons, than the white hellebore *(Veratrum album),* the hedge hyssop *(Gratiola officinalis),* the wolf-bane *(Arnica montana),* the cajeput *(Melaleuca Cajeputi),* the serpentary *(Serpentaria Virginica),* the willow *(Salix Russelliana* or *Capræa),* the poison ash *(Rhus Toxicodendron),* the nux vomica *(Strychnos),* and others too numerous to catalogue.

One reason alone suggests itself to us for this arbitrary selection, in which we should say many of the *more* important plants are left unfigured, viz. that those were sketched which came readiest to hand, and which, of course, from being the most familiar and best known, would the least be wanted for the instruction of the student: for, what other cause can account for a figure being given of the *Bryony,* while both the *Elaterium* and the *Colocynth* are omitted?

We say no more upon the head of omissions; but, unpleasant as is the task of finding fault with a work in some parts excellent, still it is a duty we owe to the public not to let vessels sail on the literary seas under false colours; and if, in an appendix, which might form a second volume, the author will supply the defects of the present one, we shall then cordially recommend his work to the student; although, if rendered as copious in illustrations as the other medical Floras to which he alludes, we doubt whether it would be much inferior to them in cost.

In fine, notwithstanding the above named serious omissions the volume is valuable, for the plates already given are beautiful, both as representations of nature and works of art; and the medical and chemical notes are creditable to the compiler.

The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education. By ANDREW COMBE, M.D., Fellow of the Royal College of Physicians of Edinburgh.—Edinburgh, 1834. 8vo. pp. 320.

THIS treatise is upon the whole sensibly written, and, though not altogether free from what might be termed physiological pedantry, is well adapted for non-professional readers. The common fault of hygienic works is their intolerable rigour, —their prophylactic puritanism. A man who lived according to their fantastic notions might immediately be known not to belong to our profession, from his horror of mushrooms, raw water, and sitting on the grass; just as Theophrastus was known to be a foreigner by the Athenian herbwoman, from the very excess of his Atticisms. Dr. Combe, however, does not fall into this error, and is tolerant as long as toleration is a virtue. The following strictures on stays and other absurdities are very judicious, and should be thundered into the ears of schoolmistresses till reform was forced upon them. Every school has its medical attendant, and how is it that these simple truths are unknown? When the doctor is called in to cobble a crooked spine, why does he not tell how crooked spines are manufactured? Is it from gross ignorance, criminal apathy, or mean subservience?

"To an unreflecting person it may seem a very easy and pleasant service to stand for half a day in the attitude of an Apollo or a Gladiator, as a model to a statuary; but, on trying it, he will find, to his astonishment, that stone-breaking or the tread-mill are pastimes in comparison: in the one case, the muscles which preserve the attitude are kept incessantly on the strain; while, in the other, they enjoy that play and variety of motion for which they were destined by nature. We may easily put the fact to the test, by attempting to hold the arm extended at right angles to the body for the short space of ten minutes. He whose muscles, if indeed capable of the exertion, do not feel sore with fatigue at the end of that time, may think himself peculiarly fortunate in being blessed with a powerful constitution.

"The principle just stated explains very obviously the weariness, debility, and injury to health, which invariably follow forced confinement to one position or to one limited variety of movement, as is often witnessed in the education of young females. Alternate contraction and relaxation, or, in other words, exercise of the muscles which support the trunk of the body, are the only means which, according to the Creator's laws, are conducive to muscular development, and by which bodily strength and vigour can be secured. Instead of promoting such exercise, however, the prevailing system of female education places the muscles of the trunk, in particular, under the worst possible circumstances, and renders their exercise nearly impossible. Left to its own weight, the body would fall to the ground, in obedience to the ordinary law of gravitation; in sitting and standing, therefore, as well as in walking, the position is preserved only by active muscular exertion. But if we confine ourselves to one attitude, such as that of sitting erect upon a chair, or, what is still worse, on benches without backs, as is the common practice in schools, it is obvious that we place the muscles which support the spine and trunk in the very disadvantageous position of permanent instead of alternate contraction; which we have seen to be in reality more fatiguing and debilitating to them than severe labour. Girls thus restrained daily for many successive hours invariably suffer, being deprived of the sports and exercise after school-hours which strengthen the muscles of boys, and enable them to withstand the oppression. The muscles being thus enfeebled, they either lean over insensibly to one side, and thus contract curvature of the spine; or, their weakness being perceived, they are forthwith cased in stiffer and stronger stays, that support being sought for in steel and whalebone which Nature intended they should obtain from the bones and muscles of their own bodies. The patient finding the maintenance of an erect carriage (the grand object for which all the suffering is inflicted,) thus rendered more easy, at first welcomes the stays, and, like her teacher, fancies them highly useful. Speedily, however, their effects shew them to be the reverse of beneficial. The same want of varied motion, which was the prime cause of the muscular weakness, is still farther aggravated by the tight pressure of the stays interrupting the play of the muscles, and rendering them in a few months more powerless than ever. In spite, however, of the weariness and mischief which result from it, the same system is persevered in; and, during the short time allotted to that nominal exercise, the formal walk, the body is left almost as motionless as before, and only the legs are called into activity. The natural consequences of this treatment are, debility of the body, curvature of the spine, impaired digestion, and, from the diminished tone of all the animal and vital functions, general ill health: and yet, while we thus set Nature and her laws at defiance, we presume to express surprise at the prevalence of female deformity and disease!

"It would be easy, were it required, to prove that the picture here drawn is not overcharged. A single instance, from a note appended by Dr. Forbes to an excellent treatise on Physical Education, by Dr. Barlow, of Bath, will suffice. After copying the programme of a boarding-school for young ladies, which exhibits only one hour's exercise, consisting of a walk, arm-in-arm, on the high road, and that only when the weather is fine at the particular hour allotted to it, in contrast with nine hours at school or tasks, and three and a half at optional studies or work, Dr. Forbes adds: 'That the practical results of such an astounding regimen are by no means overdrawn in the preceding pages, is sufficiently evinced by the following fact, a fact which, we will venture to say, may be verified by inspection of thousands of boarding-schools in this country. We lately visited, in a large town, a boarding-school containing forty girls; and we learnt on close and accurate inquiry, that there was not one of the girls who had been at the school two years, (and the majority had been as long,) that were not more or less crooked! Our patient was in this predicament; and we could perceive (what all may perceive who meet that most melancholy of all processions, a boarding-school of young ladies in their walk,) that all her companions were pallid, sallow, and listless. We can assert, on the same authority of personal observation, and on an extensive scale, that scarcely a single girl (more especially of the middle classes,) that has been at a boarding-school for two or three years, returns home with unimpaired health; and for the truth of the assertion we may appeal to every candid father whose daughters have been placed in this situation.'"* (P. 109.)

The Gardener's Dictionary, &c. By PHILIP MILLER, F.R.S. &C. A new Edition.—London, 1833 and 4. 8vo. Nos. 1—5.

ALAS, poor Philip Miller! Heaven save thee from thy friends! How much cause hast thou to bewail the indiscretions of thy editors. Martyn encumbered thee with ancient lore, and with too much learning made thy useful pleasant tome distasteful and unwieldy. Don has kept thy name as his foundation, but the superstructure is not thine,—thou wouldst not know it; and now two other adventurers have set sail in thy fair bark. As yet, they have scarcely launched out from the shore; what will be the fate of their adventures is in the womb of time; but, as the freight, in part, consists of unacknowledged transcripts, page after page, of the Saturday Magazine, we do not augur well of the rest of the cargo.

If the articles alluded to, viz. those on the Age of Trees, were worth embodying in the work, an acknowledgment should have been made, even when taken from a penny magazine; but column after column of letterpress, besides figures, are introduced, without even the commas of quotation.

This book is the chronological miracle already mentioned in our Journal: a number appears but once a month, yet fifty will be published within a year.

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* "Cyclopædia of Practical Medicine, article *Physical Education*; Vol. i. page 693."

Observations on the present System of Medical Education, with a View to Medical Reform. By A LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.—London, 1834. 8vo. pp. 95.

WERE it our object or duty to amuse our readers, we should make very large extracts from this pamphlet; for it is eminently smart and clever, and not to be laid down again till read through: but, in a Journal like this, consecrated to practical information and stern utility, such a thing is not to be thought of, and we must therefore content ourselves with a couple of short quotations.

"*The Hospital Student.* The short period between the termination of the apprenticeship and the commencement of the hospital career is spent at home, where the young doctor contrives, as much as possible, to convince the natives of the progress he has made in his studies. This is not so difficult a matter with the medical as with most other professions. People can judge of the manual dexterity of a lad, or even of his general mental endowments, but no one can say whether he will be a good or bad doctor.

"The suppositions are, however, in favour of the young student of medicine (for he has dropped the name of apprentice,) from the good testimonials he produces, and his opinion upon a dropsical female, who had been operated upon eight times with success, established his reputation.

"He was decidedly of opinion, that the swelling was caused by a bulk of fluid in the abdomen, and not by pregnancy; and, as she had been tapped already eight times, she might perhaps undergo another operation without endangering her life, though, in reality, life was a thing very ill-defined. It is true, he observed, that this would make the ninth time, and much stress was laid by the ancients upon odd and even numbers, but this opinion stood not the test of modern philosophy. He recommended, in fact, another operation, but would not commit himself by specifying any particular time. It was with great diffidence he gave his opinion, but he thought the constitution might be injured by repeated tappings.

"This opinion gained him great credit, both for his modesty and learning, and his friends thought that the 100*l.* premium had not been thrown away, and his father was the more disposed to part with the money he had put aside for his hospital career, as he saw with pleasure that there was every probability of its being well employed.

"The day arrives for his departure, and, after a little sermonizing about temptations and bad company, and sacrifices, &c. the student finds himself the following day, with his pocket full of money, in Tooley-street, in the Borough. He was now his own master in a private lodging, and every comfort about him; he felt a strange sensation as he counted over the half-notes, for the precaution of cutting them in halves had not been omitted, and he rejoined them with a wafer. He walked up and down his room, which allowed of about three strides in each direction; but it was a palace to him, it was his own, and he could ring his bell as often as he pleased. It was the 29th of September, and the lectures were to commence on the 1st of October; the following day therefore he proceeded to the hospitals, which were situated about five minutes' walk from his lodgings. He meets upon the road a young man with a catheter in his hand, turning into the gates of Guy's, and addressing him, begs he will conduct him to the office for entering to the different courses of lectures. It happened to be a dresser, a kind of non-commissioned officer, and he proceeds with him direct to the apothecary's shop. Here he saw for the first time a hospital laboratory, and he shrugged up his shoulders, when he compared it with his old master's shop. It is in reality an aristocratic establishment; and he who gets one foot into Guy's may hope in time to get both into a carriage, and himself into an apoplexy.

" He was a little astonished at his morning's disbursement, and the more so when he found that he had taken out no tickets for surgery and anatomy, which he came to London to study. He was soon, however, directed to another office, where, upon paying another considerable sum, he became perpetual proprietor of as many courses as he pleased. He had now disbursed almost the whole of the sum with which he was supplied on leaving the paternal house. He returned to his lodgings with the best resolutions, and immediately informed his friends of the legal claims already made upon his purse. The sundries did not hitherto figure in his cash-book; all was fair and legal.

" He had received tickets of admission to each course of lectures. These were printed in ink of various colours, with appropriate Latin mottoes; but he had so far forgotten his Latin as not to be able to construe them, and he determined upon buying a dictionary and grammar, and sticking this winter close to his classics.

" He already regretted his former life, and the frivolous, unprofitable manner in which he passed five years of his existence. He finds himself deficient in the very elements of education, and ignorant of such things as are necessary to his comprehending any part of his medical studies. He is now obliged to go to school again, and devote a portion of that time to elementary education, which is of itself much too limited to teach him what he came to learn." (P. 51.)

" Will patients regret the diminution of draughts and pills, powders and electuaries, the only means at present of giving a medical man food?

" Dr. Paris tells us of an apothecary who declared he put as many ingredients into his mixtures as he well could; for, in shooting out many arrows, it is probable that some will hit.

" Another gave three different kinds of draughts, one to produce heat, the other to produce cold, and the third to modify the effects of the other two. This is the nullifying system with a vengeance; but still the patient had to pay at least 4*s.* 6*d.* for what the prescriber himself confesses could be of no service.

"I had myself an opportunity of witnessing the absurdity of the present system in nearly the first case which I attended. It was a case of confirmed enteritis: neither bleeding nor leeches had been applied, and I attended the case in consultation with the late Dr. T. The apothecary, or rather druggist, who preceded us, had sent draughts, pills, and powders, with the following directions:

"One draught to be taken every two hours.

"One powder every two hours.

"One pill every two hours.

"The stomach rejected every thing taken into it. The patient recovered by bleeding copiously from the arm, and leeches.

"It was a case where no medicine could be taken by the mouth but with disadvantage during a certain stage of the disease; it was, consequently, a case either to starve the apothecary, or destroy the patient.

"Does not such a system need reform? Does not society demand it? Does not the apothecary, in his own defence, call for it?

"The fault is not always with the apothecary; the system leads to great abuses, and sometimes to unavoidable ones. Men of the highest education are found among this body, as well as men of the lowest: let them no longer be confounded together because they both live by charging time and talent upon drugs, and cease to be looked upon as mere tradesmen.

"It is impossible to say how far such innovations may be adopted, or how they will work; but it will be our regret and mortification if they do not tend to the good of all classes of society, should they be put into execution; for I trust the time is near at hand when the satire of the old practitioner will no longer be applicable—

> "Juvenis, tua doctrina non promittit opes;
> Plebs amat remedia." (P. 93.)

The best part of the work (from which our first extract is taken,) consists of the history of a country apothecary's apprentice: it is, in fact, a medical novel, and ends, as novels ought to do, with the hero's wedding. The apprentice marries his master's daughter, and succeeds to a practice of 150*l.* per annum.

The defect of this book is, that it is rather too smart: there is a perpetual string of antitheses in words and thoughts from beginning to end. We confess, however, that this is not the most unpardonable of faults in our eyes: epigrammatic exuberance resembles its parent, youth, of which the experienced are wont to say, that it is a fault which mends with time; and it must be allowed, on all hands, that wit is a tincture which it is far easier to dilute than to concentrate.

The Magazine of Botany and Gardening, British and Foreign. Edited by JAMES RENNIE, M.A., Professor of Zoology, King's College. London, 1834.

THIS is one of those dishonest publications against which, notwithstanding their cheapness and occasional value, we resolutely set our face; for the injury they do to the commonwealth of science is incalculable. Like smugglers, or pirates, or the dealers in stolen goods, they offer the wares pilfered from their neighbours at a much lower price than they could be manufactured by the honest literary operative; as that which costs nothing may be sold for nought. But it behoves authors and publishers to withstand the parasites which not only feed upon their labours, but undersell them in the markets with their own goods.

In looking over several of the late numbers of the Magazine whose editor's name —graces the head of this notice, we have found scarcely anything original in them, excepting errors which have been ignorantly introduced, or negligently suffered to escape correction. If anything can exceed the assurance with which articles are filched from every side, it is the calm effrontery with which the announcements are worded, so as to lead the public to believe that the persons who have been robbed have voluntarily contributed their property. We fear that our language is suited rather to our subject than to our own pages; but we know not any terms of condemnation sufficiently severe to characterise such a system of plunder; and, although modern refinement may use a smoother name, it seems to us that illegal conveyancing does not deserve it.

Vindiciæ Medicæ; or, a Defence of the College of Physicians. London, 1834. 8vo. pp. 113.

A PETITION was presented last year to both houses of parliament, signed by forty-nine licentiates, who complained that they were illegally excluded from the fellowships of the College of Physicians. Now, this word *illegally* was an extravagant flourish, and must have appeared so to every one who knew that the repeated decisions of the Court of King's Bench had always been in favour of the fellows, and against the licentiates, and that the charter and byelaws were consequently sound in law. Sir George Tuthill, however, the author of the pamphlet before us, has taken the trouble to go through the allegations of the petition, and confute them one by one. This was perhaps a work of supererogation, as the flourish is allowed on all hands to have been a flourish; yet it is not to be regretted, as it has made the charter, and the construction put upon it by the judges, more easy of access to many readers.

A far more difficult question remains, not as to what is, but what ought to be the law? We confess that we are not among those who would cite the existence of an institution in the days of Henry the Eighth as a sufficient authority for its existence now; and therefore, if the College of Physicians had nothing but acts of parliament on its side, our advice would be simply to repeal the Acts. It is our opinion, however, that the College is upon the whole a well-regulated and praiseworthy body. It does not persecute—that is, prosecute, (for, in the case of medical corporations, we hold these to be synonymous terms,) and of late years it has shown a reasonable facility in elevating distinguished licentiates to the rank of fellow. We should have no objection to see this facility slightly increased, and we have little doubt that it will be so: indeed, it seems to us much more likely that errors will be committed in granting than in refusing; and it would appear, from the following passage, that the College is about to concede more than any moderate licentiate could require. Surely the titular *alumni* of Aberdeen and Erlangen do not insist on the exclusion of the genuine graduates of real universities?

> "The College of Physicians pretends to no exemption from the imperfections of civil institutions; but is fully sensible that as all laws and ordinances ought to be framed in accordance with the spirit and genius of the time and country in which they are enacted, so it is perfectly just that they be modified by the genius and spirit of succeeding ages. If the conditions of our social relations be now very different from those which existed at the beginning of the sixteenth century, it may fairly be presumed that some changes will be requisite to adapt institutions then first called into existence, to the intellectual necessities of the present day. But there is an immeasurable distance between adaptation and subversion. And although it be utterly impossible for error to acquire any title to respect by reason of its antiquity, it is a safe precept to proceed very cautiously in changing what the collected wisdom of past ages may have established or sanctioned. Alteration and improvement are by no means synonymous: and it is so much easier to condemn than to reform, that it is a virtue of old institutions to be slow in their decisions, lest future experience should unhappily demonstrate that they had mistaken change for amendment. The College of Physicians has proceeded, and is proceeding, with a revision of its laws, which, it may be confidently predicted, will be productive of two important modifications: a restriction upon the admission of graduates of the English Universities to the Fellowship of the

College, and a greater facility for the election of licentiates; for it is the unanimous voice of the College, that every licentiate, educated as a physician, who may become honorably distinguished by professional eminence, or whose labours may have led to useful discoveries in medical science, should be invited to the Fellowship; but the College will never concede to a threatening adversary one single privilege which it is bound, as a national establishment, to withhold." (P. 111.)

Medica Sacra; or, Short Expositions of the most important Diseases mentioned in the Sacred Writings. By Thomas Shapter, M.D., Physician to the Exeter Dispensary and Lying-in Charity, &c.—London, 1834. Small 8vo. pp. 191.

Dr. Shapter anticipates that

> "some may say, that whilst there exists a work under the same title as this small production of mine, with the important prefix of Dr. Mead's highly and justly esteemed name, another was superfluous: sufficient apology, however, on this score may be offered; for independently of my dissent from many of the views of Dr. Mead on the diseases under discussion, it must be borne in mind, that the Medica Sacra of this learned physician was published in Latin, and that its preface contains the following anathema against those sufficiently bold to translate it.
>
> " Βεβηλοις autem hæc non scripsi; sed iis tantum, qui aut sacris theologicis, aut medicis, initiati sint et eruditi. Eâque de causâ Latino potissimum sermone in lucem edere placuit; quem per multa jam sæcula docti homines ad ea inter se communicanda, quæ aut nova, aut præter vulgarem opinionem dicta viderentur, ubique fere adhibuerunt. Si quis igitur libri hujusce Anglicam versionem suscipiat, non tantum, me invito, id se facturum sciat; sed etiam contra jus illud æquabile, quo de re sua, prout libeat, statuere unicuique conceditur.' " (*Pref.*, p. vi.)

In this passage our author seems to suppose that there is no translation of Mead's Medica Sacra, whereas it is to be found in the English edition of his works, printed in 1762, in one lusty quarto. If Dr. Shapter has not seen this translation, his little work affords an example of one of the most curious literary coincidences on record; for, at p. 186, in quoting Mead's opinion of Hezekiah's case, he uses the same words *(verbatim et literatim)* that were used by the former English translator, (p. 602, ed. 1762.)

This work is not discreditable to Dr. Shapter, for it shows liberal principles and some research; yet, were it not inconsistent with the liberty of our medical republic, we could wish that all physicians were prohibited from wandering into these by-paths, until they had worked on the high-roads of medicine. When a man can say, as Mead does in his preface, "my declining years having in a great measure released me from those medical fatigues in which, for the public good, (at least as I hope,) I have been employed about fifty years," &c., we would willingly allow that he should pass his learned leisure as he pleased, like a gladiator *rude donatus.* Unfortunately, however, the medical press groans under books which have little more tendency to improve the diagnosis or the treatment of disease, than the novels of Smollett, or the poetry of Akenside.

Illustrations of the Elementary Forms of Disease. By Robert Carswell, m.d., Professor of Pathological Anatomy in the University of London, &c. Fasciculus V. *Softening.*—London, 1834.

This fasciculus is not inferior to the preceding ones, and those who have seen any one of them will immediately allow that panegyric can go no higher. Dr. Carswell's investigations are still characterized by the same spirit of impartiality, and his plates continue to have the same correctness of drawing, and the same exquisite beauty of colouring. His observations on the erosions of the stomach after death by the gastric juice, which have so frequently been mistaken by the French pathologists for the effects of disease, are extremely judicious and convincing; but it is not necessary to quote them here, as we gave a summary of his opinions on this point in our last Number, in the review of the Cyclopædia of Medicine.

In speaking of inflammatory softening of the cellular tissue, our author says,

> "Muscular tissue is also easily torn or separated into shreds, in consequence of softening of the interstitial cellular tissue by which its fibres are united. This is often observed in the muscles of voluntary motion, and sometimes in the heart. The easy separation of the serous and mucous membranes is always the consequence of inflammatory softening of their connecting cellular tissue, and the degree of facility with which their separation is effected, affords a ready means of estimating the degree and extent of the inflammation to which this tissue had been subjected. Cases of peritonitis and meningitis occur which would escape our *post-mortem* researches but for this state of softening of the cellular tissue. In such cases there may be little or no increase of vascularity; and perhaps only a slight serous effusion, which may be overlooked, or, if observed, can afford no idea of the degree and extent of this morbid condition of the cellular tissue. Both are readily ascertained in peritonitis, by making a circular incision of the peritoneum, and then pulling the intestine in a longitudinal direction. The intestine is thus as it

were unsheathed, by the gradual separation of its muscular coat from the peritoneum. In meningitis the blood-vessels are separated from the pia mater in a similar manner."

When these splendid illustrations are completed, they will not merely be indispensable to every medical library, but ought to be found in those magnificent collections of books, where the more opulent patrons of knowledge delight to bring together all the works most conspicuous for their merit, in each department of art, science, and literature.

The Cyclopædia of Practical Surgery. By WILLIAM BLOXAM, Esq., M.R.C.S. Revised by CHARLES MILLARD, Esq., M.R.C.S. Fasciculi I—IV.—London, 1834. Folio.

THE four fasciculi before us belong to Division I. "On the Surgical Anatomy of the Arteries." The first fasciculus contains a dissection of the arteries, veins, and nerves of the head and neck; the second, a dissection of the subclavian and axillary arteries; the third, the operative surgery of the carotid and subclavian arteries; and the fourth, the dissection of the arteries, veins, and nerves of the upper extremity. The drawings are made by Mr. Cane, curator to the museum of King's College, and are exceedingly well done. The plates are lithographic, and partly coloured, so as to give them the greatest possible distinctness.

We consider it our duty, as honest reviewers, again and again to caution our readers against buying books in fasciculi, numbers, or by whatever other name the useless fragments may be known. Wait at least till some great portion of the book is finished, which may form an instructive whole. In the present case the first portion will be completed in about twelve monthly parts, and we therefore counsel our readers to bridle their impatience, and buy Division I. in December.

The Anatomy and Operative Surgery of Inguinal and Femoral Hernia. By VALENTINE FLOOD, A.M., M.D., &c. *Illustrated by eight Folio Plates.*—London, 1834.

THESE plates are of neat, but by no means of brilliant execution: they are however clear and distinct, and will serve the purposes of the student. It is with a feeling akin to regret we perceive that the violent spirit of competition, which is the canker of our profession,—which makes gratuitous offices sought for with breathless eagerness, and threatens to reduce medical remuneration to the level of the wages of day-labourer, seems to pervade even medical literature. Mr. Guthrie, Mr. Bloxam, Mr. Tuson, and Dr. Flood, have all, within a few months, published plates intended to lessen the difficulties of the operation for strangulated hernia; yet the author says "there is still a great deficiency of plates illustrating operative surgery."

Dr. Flood intends to illustrate all the capital operations in surgery in a similar manner; so does Mr. Bloxam, to say nothing of Bourgery. We trust that they may all prosper; but they must recollect that, when so many rivals are in the field, nothing but the most finished excellence can obtain attention, far less success.

Pharmacopœia Homœopathica. Edidit T. F. Quin, m.d., Medicus Ordinarius Leopoldi Primi Regis Belgarum, &c.—Londini, m.dccc.xxxiv. 8vo. pp. 165.

We recollect a remarkably instructive case in Dr. Paris's Treatise on Diet, which is quite apropos to the doctrine of Homœopathy. A clerk was in the habit of remaining at his office from nine to five, and then taking exercise for two hours, without refreshment. So long a fast, and so much work, had debilitated, and almost destroyed his digestive powers, and he sought the advice of the excellent physician just mentioned. Dr. Paris, after having administered medicine without benefit, made more particular inquiry into his patient's habits, and ordered him to take a lunch with him to his office. He did so, and got well. Now, no rational person can doubt that he would also have got well had he taken the tincture of belladonna, or of aconite, in the dose of "glob. ij. vel iij. trigesimæ attenuationis;" or that Homœopathy depends for its fame on the fact, that in chronic, or, as Hahnemann pleasantly calls them, *psoric* diseases, we have few or no specifics; and that the dietetic doctor will patch up more shattered constitutions than he who puts his trust in blue-pill and gentian.

Dr. Quin writes in the gravest of all languages, and, though we cannot compliment him on his Latinity, his gravity is really enviable. Far from ever allowing a nascent smile to betray the fact that what he is talking about is fudge, he keeps up the stern composure of a comic actor, who does not join in the laughter which he excites. He prepares his tinctures and powders, his ghosts of departed medicines, with the wholesome earnestness of a child building card-houses: indeed this is carried almost too far: for, as Montaigne tells us, that the sports of children are not to them sports, but are to be judged in them as their most serious actions, so one might be tempted to think that Dr. Quin had taken himself in, and would really treat cases in which physic might be of advantage, with his imaginary quantities, his medicinal differentials.

We will now indulge our readers with one of the formulæ of this most humorous Pharmacopœia.

ACONITUM NAPELLUS L.

Triginta attenuationes (X).

"Floret mensibus Julio et Augusto, quo tempore colligenda est.

"Succum e recente herba expressum cum pari quantitate Spiritus Vini misce, et viginti quatuor horis præterlapsis liquorem limpidum et clarum defunde.

"Unam hujus guttam cum nonaginta novem guttis Spiritus Vini bis agita, et signo (1) inscribe. Deinde attenua ad dilutionem trigesimam.

Dosis:—Glob. ij. vel iij. vigesimæ quartæ in morbis chronicis, in acutis vero tricesimæ attenuationis.

"Duratio:—Per duodequinquaginta horas.

"Antid.—Acida plantarum vel Vinum." (P. 36.)

The juice of aconite is to be mixed with an equal quantity of spirit of wine; one drop of the mixture is then to be diluted with ninety-nine drops of spirit, constituting the first attenuation; one drop of this again is to be diluted with ninety-nine drops of spirit, and this constitutes the second attenuation, and so on. A drop of the last mixture will have only $\overline{(1,000,000)}^{10}$th of the strength of a drop of the original compound of juice and spirit. In chronic diseases we may be so bold as to use the medicine only twenty-four times attenuated; in which state, however, it does not seem to us likely to produce very severe symptoms of narcotism; but we must not suppose that a whole drop is to be given for a dose: such rashness would make every hair stand erect on homœopathic heads. No; the words glob. ij. vel iij. refer to a much nicer subdivision. People often talk of a drop in the ocean; but in homœopathic practice, we learn to see an ocean in a drop. It is only in very few diseases, and to very stout men, says Dr. Quin, that a whole drop, or even half a drop, of any remedy can be given as a dose, and we are therefore to get the "globuli minimi" made of sugar and starch by the pastrycooks, of which about two hundred weigh a grain, and soaking these in the required tincture, we are to keep them for use. What these "globuli minimi" may be, we know not; our first guess was *sugar-plums;* but, though we have all eaten and given away sugar-plums (even reviewers do sometimes,) we never saw any weighing only the $\frac{1}{200}$th of a grain. The notation by which the degree of attenuation is indicated is ingenious enough.

1 signifies the first attenuation, and shows that the mixture denoted by it has, in a hundred drops, but one drop of the original compound of juice and spirit;

2 signifies the second attenuation, and shows that the mixture denoted by it has, in ten thousand drops, but one drop of the original compound;

I (the Roman numeral) signifies the third attenuation, and shows that the mixture denoted by it has, in a million drops, but one drop of the original compound;

II (the Roman numeral) signifies the sixth attenuation, and shows that the mixture denoted by it has, in a billion (1,000,000,000,000) drops, but one drop of the original compound;

—and so on: the intervening attenuations are indicated by fractions, of which the numerator is an Arabic, and the denominator a Roman numeral; thus, $\frac{1}{\text{I}}$ means the fourth, $\frac{2}{\text{I}}$ the fifth, and $\frac{1}{\text{II}}$ the seventh attenuation.

In computing the value of these homœopathic fractions, the reader must recollect, that each unit of the Roman numerals stands for three attenuations, but each Arabic unit for one only: thus $\frac{1}{\text{VI}}$ will denote nineteen attenuations.

We now take leave of our author, giving him our hearty thanks for his amusing book; indeed, his work is more than amusing; for, although the thinking physician will not adopt Dr. Quin's practice, he will certainly improve his own by the reflections which spring from the consideration of homœopathy.

The Signs, Disorders, and Management of Pregnancy; the Treatment to be adopted during and after Confinement; and the Management and Disorders of Children. Written expressly for the Use of Females. By Douglas Fox, M.R.C.S.—Derby and London, 1834. 8vo. pp. 207.

No medical practitioner can require to be informed how useless, how injurious, are books like the one now before us; yet they find readers, as the fox finds geese. All popular treatises on medicine, and, we regret to add, too many of the vade-mecums and abstracts written for beginners, fall into the same error: they suppose it to be easy to distinguish diseases, and difficult to prescribe for them; the reverse being the truth. Medicine chests, clyster pipes, and medical books, should be eschewed by all laymen who wish to live long and cheerfully; and, if the goodman of the house finds his wife reading a treatise on pregnancy, even though "written expressly for the use of females," we should recommend him to burn it without a moment's hesitation.

ORIGINAL COMMUNICATIONS.

Cases extracted from the Note-book of HENRY DAVIES, M.D., Physician to the British Lying-in Hospital, &c.

CASE I. *Marasmus.*

OCTOBER 4th, 1820. Frederic Thomson, æt. seventeen months, has been wasting away for some weeks. His stools are slimy, and come away in jerks; he has three or four in quick succession, and then none for perhaps half a day. His skin is flabby and wrinkled; his belly hard, but not tumid. The patient moans much, and is very fretful. His appetite is bad, and he loathes everything except potatoes, which he will eat voraciously, and which are discharged undigested. He has four incisor and four molar teeth. He sleeps well, and indeed is always torpid.—℞. Hydr. Submur.; Ipecac. pulv. āā gr. j. M. ut ft. pulv. omni nocte sumend.—℞. Magn. Sulph. ʒij.; Aquæ Carui ℥ss; Aquæ fontanæ ʒx.; Syrupi simpl. ʒij. M. sumat quartam partem bis in die.

The patient was ordered to use the tepid salt-water bath; and a stimulant embrocation was applied to the abdomen, which was also supported by a roller.

16th. A mixture of Inf. Cascarillæ and Magn. Sulph. was substituted for the previous one: the powder, bath, and embrocation were continued.

23d. An enema of mutton-broth was ordered to be injected every night; the other medicines to be continued.

25th. The patient is better.

30th. The stools are more natural in consistence, and he has two a day only: he takes his food well.—Continuentur Pulv. et Mist. Cascar. et enema.

November 6th. The belly is natural, the appetite good, and he has only three stools a day, which are of healthy appearance. The child is no longer so torpid, but he has a troublesome cough. He has cut another incisor. He was ordered to take an emetic immediately, and continue the cascarilla and the enema.

December 16th. Haust. Sennæ p.r.n. Rept. Cascar., &c.

27th. Belly regular; appetite good, sleep undisturbed. He still has a little cough, with a pale face and puffy skin. Sumat Vin. Ferri gtt. xv. ter in die. Rep. Haust. Sennæ p.r.n.

January 10th, 1821. The cough has left him. Contr. Vin. Ferri, &c.

31st. Discharged cured.

Case ii. *Marasmus, with Omental Tumour.*

1821. — Frame, æt. nine, had been attacked, about twelve months before, with pain in the left side and umbilical region, for which a blister and medicine were prescribed. The patient has since been under the care of various practitioners, but without any permanent benefit. The mother says that she has lost four children by similar diseases; the three now living are remarkably well-looking, with light eyes, and a fair delicate skin. The patient died July 21st, and the following post-mortem appearances were found on the 23d.

The abdomen was very tumid, and its parietes were green, as also were those of the thorax. On laying open the abdomen, the stench was intolerable, and a very large quantity of sero-purulent fluid was discharged. The intestines were coated with a deposition of coagulum, and were generally adherent to each other. The peritoneal lining of the parietes was in a state of suppuration, and resembled dirty fat mottled with spots of charcoal, while to the touch it had a granulated feel. The omentum was drawn under the left hypochondrium, covering most part of the stomach and transverse arch of the colon; to both of which it was adherent. It was spotted with black granulations, broke easily between the fingers, and looked like anything else as much as omentum. When the small intestines were cleared of a portion of the pustular deposition, red vascular patches were seen upon them, and their mucous coat was in several places destroyed by oval ulcerations. The colon was contracted, and the stomach smaller than usual. The mesenteric glands were very much enlarged, probably weighing about a pound; and one of them, close to the vertebræ, was in a state of suppuration.

Case iii. *Abscess in the Groin, from Swallowing a Pin.*

May, 1824. John Batt, æt. twenty-three months. When seven weeks old, a pin slipped into his mouth, as his mother was dressing him; two months after which a swelling was observed in the right groin. When the child was a year old the swelling increased, and was situated a little above the internal ring. It was reduced by leeches and poultices, but returned repeatedly, and was removed by the same means. At the age of fourteen months it re-appeared, and, as it did not yield to the usual remedies, and presented an evident fluctuation, an opening was made in it, and a considerable quantity of very fetid pus was evacuated. Fæcal matter was observed on the poultices about two months after making the incision.

When the patient was twenty-three months old he was attacked with measles, of which he died.

Sectio Cadaveris. A probe being introduced at the orifice, and cut upon, a sinus was found, extending an inch and a half in length above the opening; below this there was a small inguinal hernia, with an orifice in the gut, where a black substance was observed. This proved to be a corroded pin, with its point turned outwards.

Case iv. *Encysted Omental Dropsy.*

December 12th, 1825. G. Upton, æt. two years and eight months. When two years old, his belly began to swell, and the urine was much reduced in quantity, and became of a milky colour. The abdomen is now greatly enlarged, tense, and protuberant, and the superficial veins are considerably distended. There are generally two motions daily, which are of a dark colour. The patient is very restless during the night, and screams occasionally in his sleep. He has cut all his teeth, and is able to walk about a little. He has been under the care of different practitioners for several months. ℞. Hydr. Submur.; Scillæ pulv.; Digital. fol. pulv. āā grss. M. ut ft. pulv. omni manè and nocte sumendus. Frictions to the abdomen were likewise ordered, and a flannel bandage.

16th. The abdomen has not diminished in size; there is no increase of urine, and the stools are still dark and slimy; on the other hand, his appetite was improved, and he sleeps better. Pulse 112.—Pergat.

23d. As the tension of the abdomen was extreme, and the patient appeared in great suffering, he was tapped to-day midway between the anterior and superior spinous process of the ilium and the linea alba, and nine pints of a greenish fluid were drawn off. He bore the operation extremely well, and was not sick during or after the evacuation of the water, but appeared much relieved by being freed from the pressure of so large a quantity of fluid.

25th. He has been very lively since the operation, and has slept well.

January 6th, 1826. The fluid appears to be collecting again. Small doses of elaterium were given, and with temporary benefit, as they increased the quantity of urine.

12th. The abdomen is tense, and the patient very restless.

18th. Paracentesis was performed to-day in the linea alba, midway between the symphysis pubis and umbilicus, and about four pints of fluid were drawn off. For three days after the operation the patient went on well, but afterwards became very restless. There was great thirst, accompanied by retching, so that whatever was taken was soon afterwards rejected. Small doses of calomel and pulvis antimonialis allayed the vomiting considerably.

On the 25th he was evidently sinking; and died on the 27th.

Post-mortem Examination. On opening the abdomen, a distinct sac was observed, which adhered firmly to the peritoneum, and was found, on separating it from its connexions, to be the great omentum, the layers of which were thickened, so that the parietes of the sac might be about a quarter of an inch in thickness: its colour was a pale yellow, with a slight blush of redness throughout its substance. This cavity contained a considerable quantity of purulent matter mixed with a little serum.

Under the great lobe of the liver there was a thin semitransparent cyst, containing about a pint of thin watery fluid. The other abdominal viscera were sound. A small quantity of water was found in the ventricles of the brain. The left eye exhibited an excellent specimen of fungus hæmatodes in its early stage; but the optic nerve, at its entrance into the orbit, did not present any trace of disease.

On the Sense of Equilibrium, and on its Disturbance. By Herbert Mayo, f.r.s., Professor of Anatomy and Physiology in King's College, London.

Among the diversified investigations which Magendie has so successfully pursued in physiology, there is not one which has furnished more singular and unexpected results than his experimental display of the influence of different parts of the enkephalon in originating impulses to locomotion. The experiments, and their results, are the following.

1. If the hemispheres of the brain are removed by an horizontal section through the striated bodies, the animal exhibits a permanent tendency towards locomotion forwards.

2. If the upper half of the cerebellum be removed, the animal exhibits a permanent tendency towards locomotion in the contrary direction.

3. If one tubercle is deeply wounded, the animal exhibits a permanent tendency to move in a circle, which is shewn equally in swimming and in crawling, in flying and in walking.

4. If the pedicles of the cerebellum, or the lateral part of the cerebellum, be cut through vertically on one side, the animal exhibits a permanent tendency to roll over and over towards that side.

5. When one of these experiments has been made, and the tendency to locomotion in a definite direction has been deve-

loped, if the counter-experiment, or the injury which determines the opposite motion, be made, the animal stops; the one tendency balances or extinguishes the other.

Magendie somewhere concludes, from these experiments, that the voluntary frame in the healthy living body is subject to, or naturally placed under, different impulses, the opposition of which causes an equilibrium, that is disturbed on the abstraction of one of the component forces. It forms, however, a more probable solution of the phenomena to suppose that the impulses to locomotion have no existence antecedently to the lesions of the brain, but that they originate in, and are caused by, the organic injury; that, for instance, a mechanical injury of one tubercle produces vertigo, or the sense of turning or swimming in the head, to which sensation, when at a certain degree of aggravation, the animal yields, following the whirl of its feelings by its bodily movements; and that injuries of the other parts of the brain produce sensations analogous to vertigo, such as that of moving forwards, backwards, or rolling over, and these again with sufficient intensity to force the voluntary efforts of the animal to follow.

The experiments of Magendie, which have been referred to, have therefore a pathological rather than a physiological bearing; they render it easy to comprehend how an altered condition of the brain may disturb the sense of equilibrium, but they do not explain upon what that sense is founded. The true explanation of this feeling was given by Darwin: his theory, which I have adopted, is to be found in the first volume of the Zoonomia; and the remarks which I have to offer upon the subject contain little that is original, although they may be new to the reader. I think, however, that I have added something to the notion of a muscular sense, which Darwin, as far as I am acquainted with his writings, rather assumed the existence of, than properly understood. The most that has hitherto been known upon this subject was made out by Dr. Wells; after him, by Dr. Spurzheim.

Our sense of support, or steadiness, or equilibrium, is not derived from a single organ of sensation, but is the resultant of impressions made upon three senses, which contribute, however, in very different degrees to its production. These senses are the muscular sense, sight, and hearing.

1. *Of the Muscular Sense.* The most appropriate term for this sense is the sense of effort. Every muscular action is attended with a sensation, which is a measure of the exertion made.

The ideas which the muscular sense communicates are the following:

A. In common with every other sense, it suggests the idea of locality.

B. In common, again, with the other senses, it suggests the idea of something external, as the cause of the sensations experienced.

C. The sense of effort made, or of resistance encountered, gives origin to the idea of force.

D. One set of impressions on the muscular sense gives origin to the idea of different kinds of resistance in the composition of masses of matter, of their hardness or softness, of their elasticity or non-elasticity.

E. Other modifications of muscular sensation convey ideas of the resistance of masses, whether they be fixed or movable, and in what degree.

F. With the preceding impressions is combined a sense of the direction in which the effort is made, or in which resistance is encountered.

The muscular sense has its seat in branches of the same nerves (the ganglionic portions of the fifth and spinal nerves,) which furnish sentient filaments to the integuments. It is, therefore, not surprising that the living muscle feels heat and cold, as the skin does, although perhaps not in the same degree. The sense of effort, on the contrary, is the peculiar endowment of the muscular branches; as the sensations by which we feel roughness, smoothness, and the like, are exclusively excited upon the branches distributed to the skin.

But there is another sense to which it is presumable that both sets of branches, the cutaneous as well as the muscular, minister. This sense is the sense of passive motion, or of its contrary, passive rest, rest without effort. Whenever the inertia of the body is disturbed a sensation is excited. When the frame is passively supported, as in lying down aboard ship, or in a carriage, we are sensible of the change from motion to quiescence, or the reverse, of changes in the rate of motion, and even of the direction of motion, whether it be upwards, downwards, forwards, backwards, sideways, or rotatory. In these instances, however, it is the idea communicated, which alone is simple, not its cause. At any change it is evident that there will be an impression upon the surface of the body, and a vague muscular effort excited likewise; and our feeling of the rate and direction of motion must result from the agitation of all the parts of the frame which are endowed with any modification of touch, or rather, from the combined impressions made upon them all.

The sensation of passive support is the sense of the absence of motion, conjoined with the absence of muscular effort: it bears the same relation to the sensations that have been previously described, which the sense of darkness bears to sensations of colour.

A person who is blind and deaf must preserve his equilibrium through the means of sensations of muscular effort and of touch alone. When he rises from a state of passive support, or of complete bodily repose, he lifts up, by the successive flexions and extensions of his joints, segment after segment of his frame, feeling by his muscular sense the exertions necessary to sustain and balance his weight; and at each change of posture, or even in continuing to maintain the same posture, and at each instant, the guiding sense is used to measure at once and to call for the change or renewal of the effort.

One who, through being born blind and deaf, has been compelled to learn to preserve his equilibrium through the muscular sense and touch alone, moves and supports himself with perfect steadiness and precision, resting upon these senses. But those who have no such original defect employ other senses, especially that of sight, to assist in measuring their steadinesss or unsteadiness of posture. They not merely feel the muscles pulling on different aspects of the joints, and the resistance they have to encounter, and are not merely conscious of holding up the frame by muscular efforts, in the same manner as in other positions they cling by the hands and feet to prevent falling, but they likewise lean upon their sight, or upon their eyes, as upon crutches, feeling steadily balanced, when each visual object around maintains a visually fixed position.

II. *Of Vision.* The law of vision, which is *principally* made use of in conveying the impressions which guide us in maintaining an equilibrium, is the law of visual direction. Through it we have definite knowledge of the direction of each point in space that we see. The law may be thus expressed. The retina is so constituted, that, when any point of it is excited so as to see, the object or the spectrum appears to be situated vertically opposite to the point of the retina so excited. This endowment of the retina is simple, and independent of any motion, or sense of motion, in the muscular apparatus of the eye. The beautiful experiments* through which this law was discovered were made by Scheiner. The following ruder experiment was thought of by myself, which, if the law as above stated were correct, should have a result so definite and simple as at once to prove and to explain the law without recourse to the elaborate evidence contrived by Scheiner. When, by making pressure upon the globe of the eye, the retina is disturbed, it is well known that a coloured spectrum is produced. I found that, upon making pressure on different parts of the eye, the place of the spectrum obeys, or is determined, in every instance, by the law of visual direction above enunciated, appearing always to be vertically opposite to the point of the retina that is compressed.

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* See "Outlines of Physiology," by HERBERT MAYO, F.R.S. &c.

Through this law of visual direction, which enables us to measure exactly our relative position to other objects, we acquire more rapidly than we otherwise should do, and more perfectly, the means of judging of and maintaining the bodily equilibrium. But, at the same time, we exercise all the less the muscular sense; and, when it becomes necessary to resort to that alone as our guide, we sensibly feel its imperfectness, from the contrast of our present state with the certainty of sensation which we before enjoyed. In the dark, for instance, or with the eyes closed, we are unable to walk in a straight line; and, in attempting it, feel a strain and effort of attention to be necessary to do that imperfectly which habit has rendered easy to the blind. A case which bears a curious analogy to this is the difference of the power of distinguishing distances, which a person long blind of one eye exhibits, from one who, having perfect vision with both, for experiment's sake, looks with one only. The former has a vast superiority; for the latter has been in the habit of attending to and calculating upon the convergence of the optic axes, as the object of vision is nearer or more remote, which motion forms no part in the vision of the other.

The influence of sight in maintaining the sense of equilibrium is even better exemplified by disturbing visual impressions than by wholly excluding them. A person who, without previous practice, looks upon a mirror swinging to and fro, or upon the ripple of an extensive sheet of water, or down a steep declivity, becomes giddy: he has no longer a sense of steadiness, or of equilibrium. The visual impressions on which he habitually rests now are uncertain: the objects upon which his eyes used to dwell are either in motion, or at an uncertain distance; there is a relative unsteadiness, and whether it be in the object or in himself he cannot determine, and becomes giddy.

Habit enables one to disregard these uncertain impressions, and by confining the attention to the muscular sense, to preserve the sense of equilibrium on shipboard, or amid alpine scenery. Bodily debility, on the other hand, weakens our reliance upon our senses, and makes us doubly susceptible of giddiness on the kind of occasions which are here adverted to.

It is perhaps in the state of nervous debility alone that the influence of hearing, in maintaining or disturbing the sense of equilibrium, can be observed. At such a time, when loud and confused sounds strike upon the ear, the frame is perceptibly less steady, and the patient nervously looks around for external support.

The distress produced by removing the support of one sense is greatly aggravated by taking away that derived from a second. Such is the distress at first commonly experienced in a swing, or on board ship.

As practice will do so much in enabling one to preserve his steadiness, while all around is moving, and when for each second of time there must be a fresh adaptation of the frame to its shifting position, so is there a prodigious natural diversity among men in this respect. Some instinctively and at once adapt themselves, like boys placed on horseback, pliantly and easily to each variation of position. In others the body is unmanageable and unadaptive, and giddiness is immediately produced. I have generally remarked, that those who, without practice, can bear the motion of a swing or of a vessel, bear with equal freedom from uneasiness the looking down from great elevations.

The *continuance of giddiness* that has been produced by the motion of a vessel, or by turning round many times in succession, *after the cause has ceased*, deserves to be examined. It is referable to a principle of universal operation through all the mental actions. There is a law of mental induction, which extends the effects of an impression to some period after it has ceased. The anatomist who has been busied all day in teazing out filaments of nerves, when he closes his eyes to rest, is perplexed by the entanglement of threads, which his vivid conceptions force upon him. In the same manner, in one of the instances before us, the strong conception of turning remains for a long time after the body has been stopped, and we feel no little tendency to follow the conception, and realize the motion.

Giddiness strongly excited, either by continued turning or by the motion of a swing, or of a vessel, leads to nausea and vomiting. Dr. Wollaston referred the effect in some of these instances to the altered momentum of the blood in the brain. I believe that they admit of another, and a more general and a more just explanation. Giddiness, nausea, and vomiting, appear to me the natural consequences of the disturbed sense of equilibrium: there appears to be the same alliance between this sense and the effect on the stomach, as between some of the other senses (taste, for instance, or smell,) and the same. Disturb the sense of equilibrium, or present any extremely nauseous effluvia to the nose, and in either case vomiting follows.

Those who are very susceptible of disturbance of the sense of equilibrium know that one of the different causes which most excite distress and nausea, is the feeling of sinking or descending from want of support; as, for instance, when one is in a vessel that is pitching, or when a person is seated in a carriage with his back to the horses. The sense of being lifted up, on the other hand, is a strong relief, after the distress attending the sensation of failing support. As far as I can see, this difference is entirely arbitrary.

The following argument appears to me conclusive in favour of the hypothesis, that nausea, in these instances, is directly dependent upon disturbance of the sense of equilibrium. When a person has taken wine too freely, if he closes his eyes, a sensation of vertigo arises, accompanied with nausea. The vertigo no doubt results from some affection of the brain, analogous, in its temporary effects at least, to the injury of the tubercles in Magendie's experiments. Now, if the patient, under these circumstances, opens his eyes, and fixes them upon any distinct and stationary object, the internal source of whirling appears arrested, and the sense of equilibrium is quickly restored. At the same time the nausea goes off,—so closely and directly is it connected with the sense of disturbed equilibrium. On the recommencement of the inward whirl, produced by again closing the eyelids, the nausea returns; on steadying by the eye the whirling sense, the nausea again disappears.

Comparison of the Circular and Flap Operations in amputating the Thigh. From *Clinical Remarks*, by Herbert Mayo, F.R.S., Surgeon to the Middlesex Hospital.

The occurrence, in the Middlesex Hospital, during the last half year, of several cases requiring amputation of the thigh, has offered our students, along with other points of interest, an opportunity of comparing the advantages of the circular and flap operations.

I. After amputation of the thigh, the surgeon is often disappointed at finding that, careful as he may have been to guard against this particular evil, *the bone projects*, and, either becoming uncovered, throws off a ring of exfoliation, or, being just retained within the integuments, after healing, rests immediately against the cicatrix; the stump is conical, and unable to sustain pressure.

The following case will serve to exemplify what I have stated.

— Devonport, ætat. twenty-five, underwent amputation of the thigh in December last, for disease of the knee. The operation performed was the double circular incision. The integuments and fascia lata were divided by one incision. After these parts had been turned back, the muscles were divided by a second incision. The flesh was then pushed back from the bone, and the bone was sawn through. The edges of the integument, when drawn together, met well in a transverse line. Inflammation of the face of the stump, however, supervened on the third day; when it became necessary to remove the roller and adhesive plaster. No union by adhesion took place; the whole cavity of the stump suppurated; the bone projected; and it was evident that the sawn edge, for the depth of a quarter of an inch, would exfoliate. While the inflammation continued, little could be done to prevent the increasing retraction of the integument and muscles; but, when it had subsided, means were used, by rollers laid longitudinally on each side, and fixed by a circular roller round the thigh, to get some purchase upon the integuments and muscles. The longitudinal rollers were fixed to the amputation-cradle in a manner to exert a constant traction upon the flesh of the thigh, which they gradually brought forward, so that, at the expiration of ten weeks, when the rim of bone had exfoliated, the end of the stump was tolerably full and round.

In this case, inflammation casually supervening on the third day appeared the source of all the mischief: but it is possible that it had an earlier origin; and I am not satisfied that, in the first dressing, the roller was not applied too tightly round the thigh, in the wish of keeping the muscles and integuments well forward over the bone, which, though covered, yet seemed disposed to project. The bone may have been left of inconvenient length, and the attempt by pressure to support the integuments covering it may have promoted the inflammation which followed.

The patient's recovery was protracted and tedious; but was this wholly, or exclusively, owing to the too great length and subsequent exfoliation of the bone?

Jane Deans, ætat. seventeen, suffered amputation of the thigh on the 7th of February. The steps of the operation were the same as in the preceding case; but, on preparing to close the stump, on looking closely to the length of the bone, the same tendency to protrude was apparent as in the preceding instance. I therefore sawed off an additional third of an inch of bone. The sides of the stump then came together excellently, the end of the bone being completely buried in muscle, and the integuments meeting without the least strain over all. The stump was then dressed very lightly.

I was extremely disappointed with the immediate progress of this case: the patient, at the time of the amputation, was in a state apparently the most favourable for union by adhesion. Originally a very healthy young woman, of rather a full habit, she had suffered for many months severe pain, which had reduced, but had not dangerously extenuated her. The loss of blood in the operation, and removal of the source of pain, should have tended to produce that repose in her system, which would have encouraged the speediest healing of the stump. The reverse happened: the whole interior of the stump suppurated, and, although the patient's health was excellent after the first few days, yet nothing could be more tedious than the union of the wound: the final closing of the stump did not take place for twelve weeks. Nevertheless, as it drew together, the extremity was full, round, and fleshy; the cicatrix a mere line, two inches in length.

Two conclusions the student might deduce from the preceding cases: one, that the stump produced after amputation of the thigh by the circular incisions may have the greatest possible roundness or fulness; the other, that a surgeon, if he has a doubt as to the length of the bone, when he is about to close the stump, should not hesitate to saw off an additional third or half inch. It is needless to say, that the sawing off a second portion of bone is no sensible aggravation of the patient's sufferings. The only objection to it, and it is of trifling moment, is that the second section may be followed by bleeding from the medullary vessels, which may render an additional delay of some minutes necessary before the stump can be closed.

But *ought* there ever to be a necessity for sawing off a second portion of bone? In some instances I believe it to be unavoidable, supposing the surgeon to operate with a tourniquet. Without a tourniquet, indeed, the full retraction of the muscles takes place immediately, and the surgeon sees exactly at what height it is requisite to saw the bone. But, in operations with the tourniquet, this point cannot in every instance be determined. I have tried the effect of waiting two or three minutes after the division of the soft parts, the tourniquet remaining on, before I sawed through the bone; but the result disappointed me. I sawed through the bone, after having so waited, at what appeared to me a proper length; but, upon removing the tourniquet, additional retraction took place, and the bone was too long by a third of an inch.

In studying to obtain a sufficiently full and fleshy stump by the circular operation, a choice of evils has therefore to be made: it is necessary either to operate without a tourniquet, or occasionally to saw off an additional portion of bone. In some cases, perhaps, it may be well to prefer amputation without the tourniquet. If you have an assistant on whom you can perfectly depend, and if it be not important to secure the patient against unnecessary loss of blood, the operation without a tourniquet is certainly more rapid, and *then* almost as safe: otherwise, and for general practice, the operation with the tourniquet ought alone to be recommended. There is, indeed, a third method, which, however, would be attended with its own sources of inconvenience,—to divide the soft parts,—to tie the vessels,—then to remove the tourniquet,—and, as the last step, to saw the bone.

II. My disappointment at the tedious recovery of the last patient led me to employ the flap operation at the next opportunity. I thought it possible that, in the operation by circular incisions, the elaborate, but necessary, dissection of the integuments and fascia from the muscles might have essentially indisposed the divided parts to union by adhesion.

Benjamin Cockerell, ætat. seventeen, underwent, on the 5th of March, amputation of the left thigh, for disease of the knee. I pursued the following method: With my left hand I took hold of the integuments and muscles immediately above the knee. My assistant, Mr. Tuson, in like manner grasped the flesh higher up, beyond the line which I intended the incision should take. The flesh of the thigh was then drawn to the inside, so that the line of the integument, which is naturally placed above the axis of the femur, now covered its inner margin. A long and pointed two-edged knife was then passed through the thigh, on the inside of the bone, and carried obliquely downwards and outwards, so as to cut its way out. The same steps were repeated on the inside, and the second lateral flap thus made. The bone being divided, the flaps came together perfectly. Union took place by adhesion.

This operation in many respects was satisfactory. The division of the soft parts was more rapidly executed in this manner than by circular incisions; and I thought that the pain suffered was actually less, through the parts being divided *from within outwards.* The healing of the stump was as rapid as possible, as the whole of the interior united by adhesion. This must be attributed partly to the simpleness of the wound, which is unattended by such separation and dissection of parts as takes place in the method by circular incisions; partly to the exact apposition into which the divided surfaces are brought in the flap operation, leaving no intervals or vacuities, which first fill with blood, and then suppurate.

The only point which did not perfectly answer my expectation was, that the bone, though well covered, pointed directly against the cicatrix. Nevertheless, I contrived, before the stump had completely cicatrized, to obviate this inconvenience in a great degree by rolling the thigh from within outwards, so as to twist the integuments and flesh in such a manner that the greater part of the end of the bone rested against the inner flap.

It occurred to me, on reflecting upon this case, that, by modifying the flap operation,—by making, for example, the flaps transverse, instead of lateral,—the inconvenience I have last adverted to might be possibly obviated. An opportunity offered of putting this idea in practice.

Hannah Allen underwent amputation of the thigh on the 29th of March. I employed the method of transverse flaps. I first made the posterior flap, having pierced the limb behind the bone with a long catline, which cut itself out. I then in the same manner made the second flap in front of the bone; giving it, however, greater length than the posterior flap. The long anterior flap came well before, and completely covered the bone. The stump united by adhesion.

The result of this case was highly satisfactory, as far as again showing the superior rapidity with which a stump will heal after the flap operation; and in the specific point which I had in view I was not disappointed. But an unexpected evil has shown itself, which will make me in future adopt in preference the operation by lateral flaps. The patient experiences difficulty and pain in fully extending the thigh. This is perhaps accidental; but I am disposed to attribute it in part to the rectus having been left nearly entire in the anterior flap, and having been brought down before the bone, behind which is the line of union with the posterior flap. I suppose that the tone of the rectus is constantly tending to bring the hip-joint to the state of flexion. But, as the flesh of the extremity of a stump always degenerates, I entertain hopes that in this instance the inconvenience which I have described will be temporary only, and will eventually disappear.

The great advantages which attend the flap operation are, expedition in its performance, and subsequent rapidity of union, and recovery. It has this minor advantage besides: the bone can be sawn through with more certainty at the height required than in the circular method. However, upon this point there is some uncertainty even in the flap operation; as the tendency to retract in the muscles and integuments varies so remarkably in different cases. The only law which I have observed upon this subject is, that in strong and healthy limbs the integument retracts to a great extent, the muscles hardly at all; while in extenuated limbs exactly the reverse happens.

19, *George street, Hanover square;*
June 3, 1834.

Observations on Catarrhal and Catarrho-rheumatic Ophthalmia.

By Frederick Tyrrell, Esq. Surgeon to the London Ophthalmic Infirmary.

Most frequently, during the spring and autumn, inflammation of the eye prevails for a short time as an epidemic, combined with catarrh, and therefore denominated catarrhal ophthalmia. This disease is usually very tractable, and requires but little medical skill to subdue it.

In the concluding part of the late winter, and from that period up to the present time, catarrhal ophthalmia has been more prevalent than I have known it during the last sixteen years, in which, as surgeon of the London Ophthalmic Infirmary, my attention has been especially directed to ophthalmic diseases. The disease has lately in numerous instances been unusually severe, and has affected the sclerotic as well a the conjunctiva, assuming a catarrho-rheumatic character. It is my intention, in the following paper, to give a description of the catarrhal and catarrho-rheumatic ophthalmia, and of the treatment which I have successfully pursued; and this I am induced to do, from having observed much difficulty among practitioners in the management of these diseases, arising from the want of a correct diagnosis, or from confounding the two diseases, or from considering them to be purely local.

Of Catarrhal Ophthalmia.

It commences with stiffness and heaviness about the palpebræ, with slight irritation or itching of the ciliary margins, and a sensation as if some fine particles of dust had lodged on the surface of the globe: there is usually slight intolerance of light, with increased secretion of tears and agglutination of the lids during sleep. After a short time the patient experiences pain, which is increased by motion of the eyelids, or by exposure to bright light. These symptoms are aggravated about sunset.

On examining the eye there is perceived in the early stage slight thickening and redness at the free margins of the lids, and probably some coagulated secretion collected at the inner canthus, and about the cilia. The ocular portion of the conjunctiva exhibits a few tortuous vessels filled with red blood, whilst the palpebral portion is red, tumid, and villous, like crimson velvet; and in the lower folds between the ocular and palpebral parts of the membrane a little whitish or slightly yellow and thick mucous secretion is lodged.

The inflammation, however, soon spreads to the ocular conjunctiva, the vessels of which become extensively injected with red blood, and, on close inspection, are found to form a beautiful net-work. In severe cases the conjunctiva is partially thickened and elevated by deposition of serum between it and the sclerotic, constituting a partial chemosis, and occasionally small spots of ecchymosis are perceived from the rupture of some minute vessels.

If the disease extends farther it produces ulceration of the cornea.

This ophthalmic disease seldom exists without some symptoms of general catarrh, such as headach, sense of fulness about the frontal sinuses, sneezing, increased secretion from the nose, and some general febrile symptoms: the local and general diseases are usually reciprocal.

In young subjects the catarrhal-ophthalmia is often modified by a strumous diathesis, which occasions the local affection to be more severe, augments especially the intolerance of light and lachrymation, and disposes to the formation of pustules.

This disease may occur at any period of life. It is produced by a peculiar state of the atmosphere, during the continuance of which there is considerable difficulty in entirely removing the ophthalmia.

The treatment must be guided by several circumstances, as, the severity of the local diseases, the extent of constitutional disturbance, the condition of the general power, &c.

When there is simply affection of the palpebral conjunctiva with morbid mucous secretion and little general disturbance, and sufficient constitutional power, I prescribe a brisk aperient of calomel and colocynth, or calomel and rhubarb, or jalap, and afterwards a small quantity of some of the preparations of mercury with antimony, or with Dover's powder at night, and a mild saline aperient in the morning, also mild diet, principally vegetable and farinaceous, with quiet, and the avoidance of cold or damp, or of bright light.

Locally, I employ merely tepid water, to cleanse the eyes; or warm water to foment them when uneasy, and some simple ointment, which should be smeared upon the lids and eyelashes before the patient goes to sleep.

When the local disease is acute and the constitutional affection considerable, general or local bloodletting must be resorted to; the former being only necessary in persons of naturally full habit or subject to inflammatory diseases, and after bloodletting the treatment above described will be applicable.

In a few days the mild or acute form, if treated as I have described, passes into the chronic stage, which is denoted by a general mitigation of symptoms, but more especially by an alteration in the mucous secretion, which becomes thin and pale, and by the change in colour of the conjunctiva, which loses its brilliant aspect, and presents a more pale and lax appearance; at the same time it is found that the general power is failing under the continuance of the constitutional affection; the treatment must therefore be changed. Instead of exciting the secretions, they must now be kept as near as possible in their natural state, and a more generous diet must be allowed, but still the patient must abstain from such food as may tend to excite vascular action. It is necessary, in persons of feeble power, to give, in addition, some medicinal stimulus, as some of the preparations of bark, mineral acid, or ammonia.

To subdue the remains of the local disease, a slightly astringent lotion must be substituted for the tepid water, as, a solution of the acetate of lead half a grain, or a grain to the ounce; or a solution of alum a grain or two grains to the ounce; the sulphate or acetate of zinc a quarter or half a grain to the ounce, or nitrate of silver in the same proportion. Also a stimulating ointment must be applied instead of the milder form, as, the dilute citron ointment composed of half a scruple or a scuple of the unguentum hydrargyri nitratis, to two drachms of unguentum cetacei, or a scruple of the unguentum hydrargyri nitrico-oxydi to a drachm of the unguentum cetacei.

When catarrhal-ophthalmia is modified by a strumous diathesis, there is, as I have observed, intolerance of light in an increased degree, for the relief of which counter-irritation by means of blisters must be employed, in addition to the remedies already described; but the disease is always more obstinate when thus modified, and there is more difficulty in distinguishing between the acute and chronic form, inasmuch as the intolerance exists in both stages; the sufferings which it creates frequently induces the inexperienced surgeon to imagine that the disease must be acute.

As the constitution of strumous children is usually feeble, depletory measures must be adopted with caution, and the subsidence of the acute stage carefully watched, to prevent the unnecessary continuance of active treatment.

In producing counter-irritation, I am convinced that more good results from the repeated applications of small blisters, than from keeping the blistered surface open, or any other mode of inducing continued action. I direct a small blister to be placed either behind the ear, on the temple, or just above the eyebrow, and to be removed as soon as it has produced vesication; after which the part is to be dressed with some simple ointment, and allowed to heal: but, before it is perfectly well, I order another blister to be applied in the same way to another place; supposing the intolerance of light continues. I am confident also that in strumous children any cold applications to the eyes are injurious, and therefore I merely use tepid water in the acute stage, and depend in great measure on general remedies; and, in the chronic stage, if I employ stimulants, I have them applied warm.

When pustules are discovered on the ocular portion of the conjunctiva, there is not any necessity for deviation from the treatment which I have directed, although the eye is usually more irritable in consequence of the greater inequality of the conjunctival surface.

The above treatment commonly succeeds in subduing the general as well as the local disease; but now and then the acute local symptoms subside whilst the febrile action continues severe, and under these circumstances the surgeon should of course avoid the exhibition of tonics, and the use of local stimuli, as either would invariably occasion relapse.

The disease lately prevailing has been attended with considerable depression of nervous energy and diminution of general power, although the ophthalmia has in many instances been very severe; the acute stage has however readily yielded, and the principal difficulty has been in the management of the chronic form.

By far the greater number of cases in which I have been consulted have been in the chronic form, and in consequence of continued redness, pain, &c., treatment requisite for the acute form has been improperly continued; and the majority of these cases have rapidly recovered under the treatment directed for the chronic form of the disease.

Of Catarrho-rheumatic Ophthalmia.

This affection commences with symptoms similar to those of the catarrhal, but with more early suffering: for, in addition to the symptoms of the catarrhal disease, the patient experiences a constant dull aching pain in the globe of the eye, and in the temple and eyebrow: the globe feels tense, and as if it had been bruised; and these pains and sensations become so much augmented towards evening as to prevent sleep. The accession of pain is accompanied with intolerance of light and a feeling of dryness of the conjunctival surface, so that the motions of the eyelid upon the eye produces excessive pain; but occasional gushes of tears occur which for a few moments produce some relief: while the symptoms continue thus acute, the globe of the eye, the temple, and eyebrow, are extremely tender to the touch.

In the intervals between the severe attacks, when there is but slight intolerance of light, vision is frequently indistinct, and occasionally small black spots or muscæ are perceived by the patient.

On superficial inspection of the eye, the appearances denoting catarrhal-ophthalmia of an acute kind are apparent; such as the red palpebral margin, the thick mucous secretion, the thickened and villous state of the palpebral conjunctiva, with the tortuous vessels and vascular net-work on the ocular portion of the membrane; but an attentive examination soon discovers that the colour of the ocular conjunctiva is more uniform and deeper than in the simple catarrhal disease: and this upon further observation is found to depend upon the existence of another set of minute vessels filled with red blood, which can be traced in the intervals between the tortuous vessels of the conjunctiva as passing beneath them in a straight course from the margin of the cornea towards the orbit: these vessels are situated in the sclerotic coat; they are occasionally found more abundant in one part than another; as, for example, more upon the nasal than the temporal side of the cornea, and of course augmenting the depth of colour in such particular situations: it requires therefore a careful examination of the whole ocular surface to detect them.

When the vision is affected, being cloudy or troubled with muscæ, some change is perceptible in the iris; its pupillary aperture is contracted, its brilliancy is diminished, or its colour slightly altered; which circumstances are best detected by comparing the iris of the affected eye with that of the healthy organ: the motions of the affected iris also are sluggish. The iris suffers in consequence of inflammation extending to it from the sclerotic.

Sometimes a partial or complete ash-coloured line is seen between the cornea and vessels injected with red blood, most frequently the line forms a complete circle around the cornea; but I have seen it merely occupying a portion of the circumference of the cornea, being apparent at its temporal and nasal margins, and deficient superiorly and inferiorly. This appearance is considered by the continental and also many of our own ophthalmic surgeons, as a diagnostic of rheumatic inflammation. Such opinion, however, I consider to be erroneous, for I have seen a similar line present in iritis, simple sclerotitis, and choroiditis. I believe it results from the mode of junction between the sclerotic and cornea, occurring when any of the diseases alluded to are present, and seen most distinctly when the junction of the two structures is very oblique, but not at all evident when the textures are joined with little or no obliquity. Now and then the margin of the sclerotic overlaps or joins obliquely the circumference of the cornea, more in one part than another, and this I have observed most frequently on the temporal and nasal sides, so as to make the transverse diameter of the cornea less than the perpendicular diameter. When such formation exists and inflammation affecting the sclerotic occurs, the ash-coloured line is apparent only towards the nose and temple.

Commonly there is other evidence of rheumatic diathesis when this form of ophthalmia exists, the patient having pain about some of the joints or fibrous tissues in other parts of the body.

The exciting causes of the disease are cold and moisture; and I believe that the simple catarrhal affection is often converted into the catarrho-rheumatic, by too great a use of cold lotions.

Treatment. When inflammation preponderates in the conjunctiva, and the sclerotic is but slightly affected, the congestion of the vessels must be relieved by the application of a few leeches; at the same time I give the patient an active purgative, and then for a day or two I pursue the same plan as if the disease were simply catarrhal, excepting that when the circum-orbitar pains are severe, I direct blisters to be applied, or a few grains of the blue ointment with opium to be rubbed into the temple and forehead at night. Immediately the severity of the conjunctival affection has subsided, I prescribe a more nutritive diet, and small doses of bark and soda, sarsaparilla and lime-water, or some mild tonic with an alkali. I desire the patient to abstain from all acid food and fermented drinks.

Locally, warm water is occasionally used to cleanse the eye, but the patient must carefully wipe it, and not allow the surface of the lids to remain moist, as I am satisfied it augments the mischief.

The repetition of blisters is serviceable where there is much intolerance of light, or continual circum-orbitar pains.

When the eye continues irritable, with but little vascular congestion or symptoms of inflammation, I find considerable advantage from putting a drop or two of vinum opii into the eye, once or twice in the twenty-four hours. If this remedy produces pain, which is continued beyond eight or ten minutes, it does no good.

If the catarrhal affection of the conjunctive be slight, and the inflammation of the sclerotic severe, without however much affection of the iris, local bloodletting is rarely necessary. The patient is at first to be freely purged by some drastic medicine, after which a full dose of colchicum, with a narcotic, may be given, especially when there is any marked rheumatic diathesis: the best period for administering this dose is in the evening, a short time before the usual period of exacerbation. I have known it to subdue altogether the sclerotic inflammation, leaving but a slight catarrhal ophthalmia. If the first dose appears to alleviate the disease, it may be repeated every six or eight hours for three or four times; but I have never found any benefit from a longer continuance of this remedy, nor have I seen much advantage from it when it has occasioned disturbance of the stomach or bowels. I consider its beneficial action very uncertain.

Otherwise, I prescribe according to the state of general power, which it is of the utmost importance to observe, in order to treat successfully. Very often, when the local disease appears acute, the general power is extremely feeble; or, on the contrary, when the local disease is slight, the constitutional power is good; but occasionally, the general action is energetic when the local disease is severe. When the action of the heart and arteries evinces deficient power, although the local symptoms and appearances may indicate an acute form of disease, any active depletion likely to affect the system ought not to be adopted; blistering is the best means of relieving the local congestion; besides which, medicines should be given to correct any error in the principal secretions, especially those of the bowels, skin, and kidneys: the two latter I find most frequently to be deranged. Antimonials with salines, are therefore most serviceable after the bowels have been acted upon. The patient must be allowed a good nutritious diet, and even a small quantity of stimulus, if much addicted previously to its use.

As soon as the secretions are in a healthy condition, tonics should be exhibited, and if the general power is good I prescribe five grains of the pulvis cinchonæ, and an equal quantity of the sodæ subcarbonas exsiccata every four or six hours; and I know of no remedy so generally serviceable in the state of the disease above described. I am indebted to Mr. Wardrop for the suggestion of this medicine. I have frequently known it succeed in relieving inflammation of the sclerotic, when the larger doses of the same preparation have been taken some time without benefit. Should this remedy fail, I give the sursaparilla with lime-water, but with either medicine it is necessary to administer an occasional purgative, with or without some mercurial, according to the state of the biliary secretions.

When the patient's power is feeble, I usually commence with the sulphate of quinine, as a tonic, in doses of three or four grains every four or six hours; and, if there is a disposition to inordinate cutaneous secretion, I prescribe, in addition, twenty or thirty minims of the dilute sulphuric acid. Under these circumstances, also, a generous diet is requisite, and a moderate quantity of any stimulus to which the patient may have been accustomed. I have lately seen many cases in which the catarrho-rheumatic disease had continued, (principally however of a rheumatic character,) for six or seven weeks, or more; a depletory treatment having been persisted in, and in which a cure has been effected in as many days after the tonic plan has been adopted.

It sometimes happens that the disease has extended from the sclerotic to the iris before the patient applies for relief, or that the affection being treated under the supposition that it is merely a conjunctival inflammation, the remedies employed have not been sufficient to prevent the extension of the disease to the iris. Inflammation of the iris is indicated by a loss of brilliancy, an alteration in colour, a thickening of the pupillary margin, and a contracted and sometimes irregular condition of the pupillary aperture. When the iris is but slightly diseased, there is no occasion to deviate from the treatment which I have just described; but if the inflammation of this texture is decidedly developed, it is absolutely necessary to resort to mercurial treatment to stop its progress, otherwise the plan of depletion which I direct in the early stage of catarrhal or simple catarrho-rheumatic ophthalmia, may not arrest the inflammatory action in time to prevent deposit of lymph in the texture of the iris and in its pupillary margin, by which the pupil may be rendered permanently irregular, or its margin become in part adherent to the anterior capsule of the lens, and the transparency of the capsule itself be materially injured.

The exhibition of mercury must be carefully and guardedly resorted to, especially when the constitution is feeble, which I have observed it most frequently to be in persons suffering from this disease; nevertheless I deem the use of the remedy of the greatest importance, if given in small doses, at short intervals, whilst the patient is allowed a nutritious diet, and the secretions kept in good order; the surgeon may, by keeping a careful watch, always stop the exhibition of the medicine in time to prevent any mischief.

At the same time that mercury is given, the extract of belladonna should be applied to the eyebrow night and morning, to keep the pupil in a dilated state, and prevent any adhesions taking place between the pupillary margin of the iris and the anterior capsule of the lens, with a contracted pupil; or to aid in the separation of such adhesions, should they have been formed previously.

The mercurial treatment must be stopped as soon as the inflammation of the iris subsides, whether the system be affected by the remedy or not. I have seldom had occasion to give mercury so as to produce any marked effect on the system in these cases, and have always found that when the remedy has by accident, or inattention, created much general disturbance, the cure of the remaining disease in the sclerotic has been more difficult. The disease in the iris being subdued, the plan I have recommended for relieving the inflammation of the sclerotic should be immediately adopted.

In several instances which have come under my observation during the last few months, although the general and local diseases have not been very severe, the patients have experienced excessive debility, and have not recovered until they have had the benefit of change of air for a short time.

I have been desirous to shew, in the preceding observations, that it is of much importance, by careful examination of the organ and attention to symptoms, to ascertain the extent of disease before treatment be commenced, and that the treatment must be varied according to the extent and severity of the inflammation; but especially to point out to the existence

CASE OF DISEASE OF THE SYMPATHETIC NERVE.

William Sharpe, eleven years of age, had a purulent discharge from the left ear, which began in the spring of 1824, kept gradually increasing, and became very offensive. Blisters were applied many times behind the ears, and tonic medicines administered without producing any good effect on the local disease, although his general health was improved by them. About the end of March, 1825, the integuments around the ear became swoln and painful, and the whole side of the face was enlarged. At this time the discharge was very copious and offensive; he had frequent pains in the head and over the left eye. On passing a probe into the meatus the bone was found to be denuded; his health had declined, and tonic medicines were of no use. In December it was observed that the left side of his face was nearly paralytic; he had violent pains in the head and face, which were much aggravated at night, and for which he took an opiate with some relief. He was frequently drowsy, and sometimes nearly comatose. In February, 1826, there was some inflammation of the conjunctiva of the left eye, which went off in a few days. On the 12th of October the left temporal bone appeared to be quite loose in the wound, and was easily extracted. About a week before this time his right eye became amaurotic, the pupil was dilated, and the lids closed. On the 14th he became insensible, but cried out when touched. On the 16th a large vesicle formed at the inferior part of the left cornea, and the greatest part of the cornea had become opaque. The right cornea was not altered. He had slight convulsions, and when the left side of his face was touched he flinched. He died in the night.

He walked about until the last few days. He had generally a good appetite. His food appeared to digest properly, and indeed all the functions of the viscera of the chest and abdomen were perfectly performed. He could talk distinctly. The left side of his face was nearly paralytic, and the left side of the nose was completely drawn to the right side. When he cried out, so as to exert the muscles of the face much, it was observed that those of the right side had very great power over those of the left; but the mouth, when shut, appeared even, and would not then have been supposed to be paralytic. From the end of last March the pain in the right side was very severe, he shrieked very much, and the opiate did not relieve him. His manner became altered, and he was unwilling to answer questions. He was generally easier in the day, and spent much of it sleeping in the sun.

Examination. This took place on the 17th of October, at eleven A.M. The dura mater was rather more vascular than is usual. The arachnoid membrane was much thickened, and especially on the right side, and there was much fluid between it and the pia mater. The pia mater was very vascular. There was much fluid in the lateral ventricles. The portion of brain which lay over the part from which the temporal bone was separated was protruded into a hernia, and the inferior cornu of the lateral ventricle was thereby drawn out of its course; the brain at this part was softer than natural, but the rest of it was sound. The origins of the nerves were distinct.

The third branch of the fifth pair was in a state of ulceration, near its beginning from the Gasserian ganglion; the gustatory, dental, and buccal nerves were however quite attached to it, and indeed did not appear to have suffered.

The auditory and facial nerves terminated in a bulbous mass on the dura mater. The facial nerve could with difficulty be traced in the face near the edge of the jaw, on account of the inflammatory process which had been going on there. It could, however, be distinctly seen to communicate with the dental nerve, and then terminate in a confused mass, which formed the walls of the cavity containing the exfoliating bone.

The par vagum, the glosso-pharyngeal, and the accessory nerves were sound, and passed just behind the walls of the same cavity.

The internal carotid artery, from above and below, could be traced as far as the walls of the cavity, and was then lost. It was reduced to a small size, however, before it reached the walls of the cavity, and was impervious.

The superior cervical ganglion of the sympathetic nerve terminated in the walls of the cavity. The branches given off from the sixth, which usually go to the superior cervical ganglion, were very small, and terminated with the internal carotid; the superior cervical ganglion itself appeared natural.

The vidian nerve was perfect from its connexion with the spheno-palatine ganglion. The superior branch could be traced a short distance, but soon became much smaller than usual; the inferior branch could be traced a little way, it then became very small, and the branches from the sixth could be traced the same distance, and both of these terminated with the internal carotid artery, in the walls of the cavity.

The condyloid process of the lower jaw was exfoliating. The whole of the temporal bone had exfoliated, and to compensate for it, the orbital plate of the frontal bone had become unusually thick, and all the bone in the neighbourhood of the disease had a firmer texture than is observed at his age. The pericranium round the opening at which the hernia protruded, was much more vascular than in the other parts.

A considerable portion of the brain had protruded like a fungus into the cavity left by the exfoliated bone; it had been forming gradually, and was, no doubt, the cause of his death.

The quantity of fluid contained in each ventricle was the same, and therefore the blindness of the right eye did not depend on this as its cause, for vision remained in the left after the right one was blind.

In the examination, a black pin was found in the cavity. which had contained the exfoliated bone. Pins had not been used to confine the dressings, the question therefore is, whether it had been forcibly introduced into the ear, and occasioned the disease, but this could not be ascertained.

It will be seen, from this very curious case, that the sympathetic may be partly destroyed, and the general health remain unimpaired, as we have a right to presume after a due consideration of all the circumstances which have been related. We may conclude, therefore, that although the sympathetic nerve produces a general sympathy in the body, yet that each ganglion has a somewhat local influence, inasmuch as it more particularly connects the parts giving and receiving branches from it, so as to associate them in complicated operations. Both the spheno-palatine ganglion, and the vidian nerve, were first of their usual size, then each branch of the vidian was diminished. Can it be presumed from this, that the branches of the vidian are going to, and not coming from, the sympathetic nerve?

The functions of the facial nerve must have been entirely suspended, and, from the evenness of the mouth when at rest, and from his ability to speak so well, I cannot help concluding that the branches of the fifth had very considerable power in exciting the action of the muscular structure of the lips.—*Swan on Diseases of the Nerves.*

TREATMENT OF THE VENEREAL DISEASE IN THE HOSPITAL OF THE 72D REGIMENT, AT THE CAPE OF GOOD HOPE.

Years.	Primary Venereal Disease treated. With Mercury.	Primary Venereal Disease treated. Without Mercury.	Total.	Secondary Symptoms after Mercurial Treatment.	Secondary Symptoms after Non-Mercurial Treatment.	Relapses after Mercurial Treatment.	Relapses after Non-Mercurial Treatment.	Total.
1829	39	57	69	4	0	1	0	5
1830	40	64	104	4	2	2	0	8
1831	25	71	96	3	6	3	1	13
1832	12	30	42	2	10	6	2	20
Total	116	222	338	13	18	12	3	46

Mr. T. Clarke, in Med. Gazette.

DEEP-SEATED ABSCESS OF THE THIGH.

After the lecture, a patient was brought into the hospital under the following circumstances. He stated that he was a hackney car-driver, and aged about thirty-five years. Five days previously he was seized with severe pain in the back of the thigh, and on the following day he was unable to straighten his knee. Since the commencement of the pain he has felt "a great sickness over him," and has never enjoyed a single hour's sleep. He looks exceedingly ill; his pulse is small and frequent; there is a light erysipelatous blush over the integuments at the back of the thigh; the whole limb appears to be somewhat swelled; and Mr. Crampton pointed out to the class, that it was tense and hard at its posterior part, a little above the ham.

"This, gentlemen," said Mr. Crampton, "is a most important and instructive case. It is an instance of acute deep-seated abscess of the thigh, with its constant attendant, erysipelas of the skin. I shall give you a particular lecture on this case; but at this late hour all that I can do is, to show you what is required for the safety of the patient. The matter, which has just been formed, is lying deep beneath the fascia, and even below the superficial muscles. If art were not to interpose, the suppuration would extend upwards and downwards among the muscles, producing intense pain; and if the man were (as he appears to be) of a bad constitution, the inflammation would assume the erysipelatous character, in which, you know, the adhesive process is deficient, and spread all through the limb. The cellular membrane, deprived of its vitality, would form sloughs immersed in a sanious suppuration; the skin, detached from the superficial fascia, would become pale, then purplish, and this would be the precursor of its sloughing; eschars would form on it from its partial mortification, and when these separated (if the patient survived the mischief,) it would be found that the openings led into an immense cavity filled with unhealthy pus, and traversed by muscles altogether deprived of their cellular texture, and appearing more clean than you have ever seen them on a dissecting-table. Concurrently with all this terrible local mischief, we should have suppurative adynamic fever of the worst description, profuse perspirations, diarrhœa, and not unfrequently purulent depositions in the lungs and liver. I need scarcely say that few indeed have a constitution capable of holding out under such accumulated sufferings. Accordingly, phlegmonoid erysipelas of this kind is not only one of the most painful, but one of the most fatal occurrences which we ever encounter; and here we have an illustration of the truth of the aphorism of Hippocrates respecting erysipelas: "Ex erysipelate putrido, aut suppuratione malum." You will observe, that the word "putrido" is used to express the sloughing and putrefactive process which characterizes the suppuration of erysipelas, as distinguished from that of phlegmon. Children escape oftener than adults; but I have very seldom indeed seen a man after fifty who has survived phlegmonoid erysipelas of a lower extremity, where the disease had got extensively into the intermuscular cellular membrane. The successful management of this disease I look upon to be the greatest triumph of modern surgery. You all know how much stress I have ever laid on the necessity of early and vigorous measures in the treatment of this affection; and I trust that the present case will add one more to the many successful cases which we have had of this disease since our session has commenced. Among others, the boy in the large clinical ward, with phlegmonoid erysipelas of the knee and thigh from a wound; the man with a similar affection of the fore-arm, from a wound on the elbow; the woman with erysipelas of the fore-arm and arm, from a slight contused wound of the elbow, on whom I operated last week, and whom you saw this morning among the externes nearly well, are all cases of the successful treatment of this disease.

It affords me great satisfaction in having an opportunity of rendering that justice to Mr. Copland Hutchinson which some of his own countrymen have denied to him. To him we are exclusively indebted for this great improvement in the treatment of erysipelas. Like all great improvements, it was at first met by a denial of its utility, and then by attributing it to somebody else; but I have no hesitation in thus publicly offering my acknowledgments to him for one of the most valuable improvements which have been made in the practice of surgery within our times.

The case before us, you will observe, is not one of phlegmonoid erysipelas, properly so called: it is a case of deep-seated intermuscular phlegmon, accompanied with erysipelas of the skin and subjacent cellular tissue, in consequence of the inflamed and tense state of the fascia. But in a constitution like this man's, broken down as it is by intemperance, the true phlegmonoid erysipelas would in all probability arise, if the abscess were not opened, and the tension of the inflamed fascia relieved.

Mr. Crampton having laid the man on the table in a prone position, made an incision six inches long over the posterior aspect of the lower third of the thigh. The cellular substance, which was now exposed, was loaded with a reddish coloured serosity. Mr. C. then slit up the fascia to the same extent, and laying aside the knife, he slowly insinuated his fore-finger between the muscles, just above the popliteal space, until he reached the cavity of the abscess, and this did not occur until his finger was buried as deep as it could go.

"Now," said Mr. Crampton, "I have reached the matter;" and, on withdrawing his finger, about eight ounces of thick cream-coloured pus gushed from the wound. A thin dossil of lint was interposed between the lips of the wound, and the man was carried to bed. He was ordered some purgative pills, and an effervescing mixture made in an infusion of cinchona.

Dec. 2d. The man is free from all complaint, and the wound is healing rapidly.—*London Med. and Surg. Journal.*

ON THE DEATH OF NEW-BORN INFANTS DEPENDING ON ANORMAL STATES OF THE UMBILICAL CORD. BY DR. KOHLSCHWETTER.

The funis may cause the death of the child, 1st. by its prolapsus; 2dly, by becoming knotted; 3dly, by being twisted round the child; 4thly, by its shortness; 5thly, by the situation in which it is placed in a footling delivery. Authors do not agree in the cause of death in these cases; some attribute it to anemia, others to apoplexy, others to asphyxia, or rather the loss of the pulmonary function; and a fourth class, to the deficiency of nutritive juices which the funis can no longer transmit to the fœtus. Among these opinions we shall notice those alone which have enjoyed some degree of reputation.

1st. *Anemia.* Minelhauser advised (in 1754) that the funis should be cut and tied to prevent the child dying of anemia, in cases of prolapsus of the funis, or during a footling labour. This opinion was adopted by Stolper in 1807; and, according to this author, the tunics of the umbilical arteries are thicker and have more elasticity than the vein, and the blood circulates with more force in the former vessels. Hence the arteries will be less exposed to compression than the vein, and the blood not being returned, anemia will arise from hemorrhage. He thinks that the truth of this theory is demonstrated by the paleness of the child, and by internal signs of hemorrhage; but his opinion has not been corroborated by dissections. This theory is obviously improbable to the last degree, for it is not only opposed to the structure of the funis, which does not allow the vein to be compressed without the arteries, but moreover, in children who have sunk under pressure of the brain, there has never been a deficiency of blood, which is the only sign capable of demonstrating that hemorrhage was the cause of death.

Plethora. The authors who suppose that death takes place from this cause, by no means agree as to the kind of plethora which arises, for, according to some, it is general, and, according to others, partial. The reasons they urge in favour of their opinions are diametrically opposed to the writers before mentioned; for those with whom we have to do at present suppose that it is not the vein but the arteries that are compressed. It should not be forgotten, however, that there is no mechanical obstruction to the circulation, even if the umbilical vessels are obstructed. And, in fact, the pulsations of the heart often continue for more than ten minutes in children born in a state of asphyxia, from compression of the cord.

Medico-legal Questions. The different conditions of the funis may lay the foundation for so many difficult questions in medical jurisprudence. First of all, we must not forget to declare that respiration, while the child is in the vagina, is a possible occurrence. Artificial insuflation of the lungs may give rise to great difficulties; for if it is true that a congestion of blood may take place in the lungs of the fœtus which has not breathed, in consequence of the suppression of the umbilical circulation, we lose the diagnostic sign by which it has been attempted to ascertain whether the respiration has been natural or artificial. This is one of the weightiest objections brought forward by Jaeger against Plouquet's test.

Knebel and Bernt have supposed that prolapsus of the funis may be known to have taken place by the contusion and ecchymosis of the parts of the cord which have been compressed; and in a case of prolapsus Michaelis observed two red and ecchymosed spots on the cord. But this sign is not always present, for the pressure on the cord is often not great enough to cause ecchymosis. The attention of the physician ought to be particularly directed to the head, where he will find the traces of a bloody tumour, even if it has already disappeared; for if the child dies during the beginning of labour, the swelling is then to be seen in the middle of the sagital suture, whereas in new-born infants it is in the upper and posterior quarter of either parietal bone. Moreover, it must be remembered that children may be born alive, in spite of the prolapsus of the funis, but in such a state as to die after having breathed feebly.

When a knot upon the cord has been produced a long time before delivery, it leaves furrows in the spot where it has existed, as a trace of the meeting of the parts which had formed it. The very moment that the knot is untied, the cord swells a little, and shows such a tendency to remain knotted, that, if it is relaxed and pulled out, it immediately returns to its former state. But it is not so with a knot of recent formation; when once undone it leaves no trace behind.

The twisting of the cord around the neck of the child is a source of much doubt to the medical jurist; for neither experiments on the lungs, nor the ecchymosis around the neck of the child, nor the external and internal signs of asphyxia, will empower him to decide whether the death of the child has been produced by accident or design. A very remarkable case is mentioned by Jaeger. A woman was secretly delivered of a child, who came into the world in a state of half-asphyxia, the cord being twice twisted round its neck; and the mother was accused of having strangled it. There was a deeper and narrower mark around the neck of the child than the cord would have made; there was no ecchymosis, and the lungs were but little expanded by air. The cranial and thoracic cavities contained a great deal of blood. The question was ably resolved by the College of Physicians at Wurtemberg, and their decision was confirmed by the confession of the prisoner. In Servaès' case, the mother strangled the child with the funis itself. The fact narrated by Schwarz is still more replete with difficulties. In a face presentation, the child came into the world dead, and with its neck tightly squeezed between two circumvolutions of the funis. A livid zone surrounded the neck, causing a depression sensible both to the sight and touch. The face was rather swelled, but not livid, and all the rest of the body was covered with livid spots. The coronary vessels of the heart and stomach were gorged with blood, as well as the right auricle; the left auricle was empty and flabby. The lungs seemed gorged with blood, and sank in water. The veins of the abdomen were swelled; there was no congestion in the brain. If to this we add, that the child, presenting by the face and in the most favourable position for respiration in the vagina, might have breathed, we shall have all the signs of suffocation by strangulation. It is therefore with justice that Plouquet, Knebel, Henke, and others, have considered the solution of the problem in similar cases as exceedingly difficult. According to Adolphus, Plouquet, Henke, Hinze, Platner, and Bernt, the twisted cord may leave a livid zone around the child's neck. Klein and Elsasser are of the contrary opinion, and do not allow the possibility of a zone produced by the funis during labour. Albert observed a livid mark situated in the axilla, seven lines long and two lines broad, but a portion of the funis was compressed. An important distinction, however, is to be made. If there is a band of ecchymosis around the neck, it ought not to form a perfect circle, but the two ends should cross one another. If the circle is perfect, we must suspect that the impress is due to a murderous hand, and this suspicion will be strengthened, if the lungs are found distended with air, and containing blood, together with all the other signs of life having gone on after delivery. As to supposed death from the shortness of the umbilical cord, the physician cannot give an opinion on this point, if the cord is not submitted to his examination. In the cases the most favourable for forming an opinion, his decision must still be doubtful; for all that he knows concerning the relation of the funis to the axis of the pelvis, concerning the dimensions of the fœtus, the state of the funis itself, the probable insertion of the placenta in the uterus, and all that respects delivery, will not allow him to decide if the child has died from tension of the funis during labour, or from some other cause.

Delivery by the Feet. Although delivery by the feet is frequently fatal to the child, medical jurists have taken but little pains to ascertain the effects of this kind of death. It is true that respiration in the vagina can very rarely take place in such cases, yet its possibility cannot be altogether denied. In the case reported by Pyl, all the signs of this variety of delivery may be recognised, and the question appears to have been well answered. In the case quoted by Batner, the midwife had extracted the fœtus. In the report, the compression of the cord, and the probable tension of the spinal marrow, have been passed over. When no trace of violence can be discovered, we may conclude that the death of a new-born child arises from a footling delivery, if, in addition to the signs of death caused by compression of the funis, a swelling is observed in the genitals and scrotum of the male, or in the labia of a female. Additional information may also be acquired from the circumstances attending the delivery, and from an examination of the genital parts of the mother.—*Abridged from the Archives Générales.*

EFFICACY OF THE EXTRACT OF BELLADONNA IN STRANGULATED HERNIA.

Dr. Fränkel, of Elberfeld, has tried the external use of the extract of belladonna with success, in cases where the taxis was ineffectual.

CASE I. A healthy countrywoman, æt. forty-two, was struck upon the right hypochondrium by the axle-tree of a cart, and thrown upon the ground. Her countenance was pale, the extremities cold, the pulse small and spasmodically contracted; and she vomited bitter matter, mixed with mucus. In the left groin there was an incarcerated hernia, produced by the accident, as the patient expressly declared that there was none before. Venesection, leeches, poultices, and aperient clysters, were employed, and a saturated solution of carbonate of potass internally administered, with the effect of relieving the pain in the right hypochondrium, but the hernia was still irreducible. Feculent vomiting and other bad symptoms came on, and Dr. Fränkel consequently proposed the operation; but as this was not consented to by the patient and her friends, he gave occasional doses of cherry-laurel water, and rubbed in belladonna ointment upon the hernial tumour.* The symptoms soon gave way, and the hernia was reduced. This case was encouraging, still it was but a single case, and it might be said that the hernia would have been reduced without the belladonna. Another opportunity for trying its efficacy soon occurred.

CASE II. A strong woman, æt. thirty-six, the mother of six children, had a femoral hernia, but did not wear a truss, as the gut came down only during her pregnancies. One night, however, when getting out of bed suddenly, the hernia became incarcerated. The operation was thought necessary, but the patient would not submit to it, and Dr. Fränkel was called in. The belladonna was again administered, and was again successful, though the incarceration was of eight days' standing.

CASE III. The patient was a female of about fifty, who had long suffered from a crural hernia of the right side. She had long been unable to wear a truss, from the induration of some inguinal glands in the vicinity of the hernia. Leeches were applied, and the ointment rubbed in; and on the fifth day the vomiting ceased, and evacuations by stool took place. The hernia was reduced;

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* What the strength of the ointment was we do not know, for there is obviously a misprint in the original, which runs as follows: *welche aus einer 3 Unguentum altheae und zwei ʒ extr. belladonnae bereitet war.—Journal für Chirurgie, &c.* Band xx. p. 561.—[*Ed. Med. Quart. Rev.*]

some of the inguinal glands suppurated, but healed under the use of bran poultices.

Case iv. The patient was a very old, thin and feeble woman, suffering under umbilical hernia. Here too leeches, poultices, and the extr. bellad. succeeded in making the hernia reducible. Dr. Fränkel states that he has used this remedy in six cases, and always successfully, but narrates only the four of which we have given an abstract. He refers to four cases of strangulated hernia given by Fuget Duponget, in the *Revue Médicale* for November 1831, in which linen, soaked in a solution of extr. bellad. was successfully applied to the abdominal ring. Our author, however, prefers rubbing in the ointment.—*Graefe und Walther's Journal.* Band. xx. Heft. iv.

ON THE DIVISION OF THE TENDO ACHILLIS AS A MEANS OF CURING CLUB-FOOT.

The division of tendons as a means of curing certain deformities has been rescued of late by Delpech from the oblivion into which it had fallen. He lays down the following rules for its performance: The tendon should not be exposed, nor should the section be made in a direction parallel to the wound of the skin, lest exfoliation should take place. Immediately after the division, the two portions should be placed in contact, and retained there until they are consolidated. This union is accomplished by the formation of a fibrous substance, of a soft consistence; and it is during this state that gradual extension must be made, until the deficiency of the length of the muscular fibre is repaired, and afterwards continued till the intermediate substance has become perfectly solid.

The method adopted by M. Delpech did not, however, fulfil all his indications; for, in the case of a boy whose tendo Achillis he divided, the operation was followed by sloughing and tedious suppuration. The boy being laid upon his stomach, the operator plunged a bistoury under the tendon, dividing the skin for about an inch on each side of it; he then withdrew the instrument, and reintroducing a convex-bladed knife with the cutting edge towards the tendon, divided it from within outwards. Here, though the skin over the tendon was not injured, the tendon exfoliated, the parts suppurated, and the cicatrix afterwards impeded the motion of the foot.

Dr. Stromeyer has modified this operation of Delpech in a very ingenious manner. The following are some of his successful cases.

Case i. George Ehlers, aged nineteen years, came under the doctor's care in October, 1830, with an affection of his left foot, which had existed since his fourth year, and resisted every local and constitutional treatment. The toes were bent inwards and downwards, and the foot itself was so turned that its external margin was brought into a line with the axis of the leg, and so extended by the contraction of the gastrocnemii muscles, that both its edges were in a straight line with the anterior surface of the leg.

Above the outer margin of the foot were two callosities, arising from the pressure of the patient's walking on that part at the onset of his disease. The joint was nearly immoveable, and the leg much wasted. There was some curvature of the knee, from the use of a wooden leg, to which he had had recourse for five years. The operation was performed on the 28th of February, 1831. The patient being seated on a table before the operator, an assistant held the knee firmly, while another endeavoured to flex the foot, so that the tendo Achillis was rendered very prominent. A pointed convex bistoury was inserted underneath the tendon, about two inches from its attachment, dividing it as it passed along. Care was taken to make no external wound on the opposite side, and to confine the other to the size of the blade of the bistoury. Very little blood was lost. The tendon retracted but slightly, scarcely three quarters of an inch, when the foot was flexed, and during its extension the parts readily came into contact. The wound was covered with plaster; a long compress was placed on each side of the tendon, with a figure of 8 bandage, which answered the two purposes of pressing on the part and keeping up extension of the foot.

On the third day the wound was healed; the tendons were slightly swollen, but as yet there was no union between the two portions, a fact manifested by the motion of the foot not being communicated to the upper portion.

On the sixth day the swelling had subsided, and there was a slight degree of union. On the tenth all tenderness had ceased, and the patient could readily move his foot.

At this period Dr. Stromeyer commenced his extension, by means of an apparatus hereafter to be described. The utmost caution was employed during its application, lest the recent adhesions between the surfaces of the tendon should be ruptured. At the end of a week, however, more force could be used without occasioning any severe pain, and in the course of eight weeks the foot was brought to a right angle with the leg. An iron boot was then applied, which could be made to act, with the power of a screw, in diminishing this angle, without destroying the mobility of the joint. With this boot the patient could walk across the room; but, of course, suffered at first from weakness and œdema of the limb, occasioned by its long inaction. This swelling subsided at the end of two months, but it was even then impossible to form any very accurate opinion as to the size of the tendon, or the length of its connecting substance. It might, however, be observed that the gastrocnemii muscles on that side were much higher than on the opposite leg; proving that this power of flexion of the ankle-joint did not depend upon any elongation of the muscular fibre, but of the tendon only.

The patient laid aside his boot at the end of six months, and at the period of the publication of his case (eighteen months after the operation,) he had a perfect use of the joint, the newly formed substance having shown no disposition to contract.

Case ii. M. B. Blumenthal, æt. thirty-two years, consulted Dr. Stromeyer, in May, 1832, for a similar affection of his left ankle. Its origin was attributed to certain convulsions, from which the patient suffered during infancy, but it had gradually augmented until it had confined him to his bed. The state of the foot was very similar to the former case: the heel never touched the ground, but the muscles were only slightly wasted, and the joint remained perfectly moveable. The operation was performed on the 12th of June, 1832, and the only difference in the mode of its accomplishment was, that the bistoury was inserted at a distance of three inches from the tendon, in order to remove the wounds from the pressure of the bandages. During the flexion of the foot the portions of the tendon were separated, but, on its extension, they were readily brought into contact. The parts were subsequently kept in a state of perfect rest by means of a splint applied to the anterior surface of the leg and foot.

During the night the patient experienced slight cramp in the leg, and on the second day the ends of the tendon were discovered not to be in contact. A bandage was applied round the whole limb, in order to prevent their muscular contractions, but was ineffectual. It was therefore removed, and they did not return under the use of the splint only.

By the fifth day union had commenced, and on the tenth extension was resorted to, and continued during five weeks. The boot was then applied as in the former case, and in ten weeks the foot was brought to a right angle with the leg, and the sole of the foot was planted horizontally on the ground in walking.

The apparatus employed for the extension by Dr. Stromeyer consists of a splint longer than the leg, and terminated inferiorly by a rounded notch for the external part of the leg and the prominence of the malleolus. A moveable wooden sole was situated between projections bordering this notch, which could form various angles with the perpendicular portion of the splint. To this sole a small windlass is attached, the cords of which pass over pullies fixed to the upper and anterior portion of the splint, so that, by turning the handle of the former, the sole may be brought to a right angle with the other part of the apparatus. An iron catch falls into the teeth of the wheel attached to the windlass, so as to prevent its returning on itself. By means of this (care being previously taken to pad and bandage the limb,) powerful extension may be employed upon the tendon, and graduated at pleasure.—*Abridged from the Archives Générales.*

CONVERSION OF THE RIGHT LUNG INTO AN ENCEPHALOID STRUCTURE.

John Keating, aged thirty-six, of a muscular form, a printer, admitted on the 1st of May, 1833, into the Meath Hospital, which he had left in the beginning of April, having then been in it nearly two months. He dates his illness from the summer of 1832, at which time he became subject to occasional pains in the right side of his chest, increased by deep inspiration. Last November he was attacked with cough, dyspnœa, hoarseness, slight expectoration, at first mucous, afterwards a little tinged with blood, and constipation of bowels. In a short time he observed also some œdema of the face and neck, rather greater on the right side, and on rising in the morning. This illness he attributed to over-exertion, want of rest, and cold caught by handling damp paper. The symptoms were a little relieved by venesection and a cough mixture. The attack however recurring, he came into the Meath Hospital in the month of February last, labouring under symptoms less urgent, but of the same character with those detailed below, on his second admission. He was treated by Dr. Stokes with venesection, moderate mercurialization, repeated blisters, &c., and went out slightly improved about the beginning of April. Being still however unable to work, and finding his symptoms returning with increased violence, he again came to hospital, and was placed under my care, the 1st May. His chief distress arose from excessive dyspnœa, almost amounting to orthopnœa; when he lay down the only position in which he could breathe tolerably was on the right side. After a few weeks he found it impossible even to do this; and for eighteen or twenty days before his death he sat in his bed night and day, leaning forward as far as possible, and supporting his head by means of a pillow placed on his knees. A state more piteous could scarcely be imagined. When admitted his dyspnœa was increased by the least exertion, which brought on palpitations of the heart. He had a dry cough, with occasional scanty expectoration slightly tinged with blood; no pain in chest, with the exception of slight stitches on making a full inspiration. He experienced some difficulty of swallowing, and referred the cause of obstruction to the lower part of the throat. There is no soreness in any part of the chest, but he complains of some pain about the right shoulder. His face is bloated, pale, and looks as if it were slightly œdematous; this, together with a certain appearance of the eyes, as if the balls were somewhat protruded from the sockets, and a marked dilatation of the nostrils during breathing, gives his countenance an expression of distress and suffering. The right jugular vein was much distended, as were the veins in the right axilla, but this symptom was chiefly remarkable on the surface of the belly, where two veins corresponding to the situation of the superior epigastric artery pursued a remarkably tortuous course along each side of the linea alba, being turgid, and dilated to the size of swans' quills.*

His bowels were constipated, and subject to griping pains.

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* "This circumstance indicating some obstruction at the right side of the heart, I then considered as affording indubitable evidence of the disease of the heart itself. The dissection proved that the cause lay not in the heart, but in the impervious state of the right lung, in consequence of which, the black blood had its

Urine scanty and high coloured; loss of appetite; night sweats; slight thirst, tongue clean, pulse one hundred, regular, and compressible.

Examination of Chest. The intercostal spaces on the left side are more distinct, deeper, and more dilated in respiration, than those on the right; the latter, however, although not so well marked, are by no means obliterated, or distended by pressure from within. The right side of the chest measured about half an inch less than the left.

Percussion. Left side anteriorly, a clear sound everywhere, until we came within an inch of the sternal median line, where it became dull. Posteriorly, everywhere a clear sound. Right side, universally over every part, as dull as possible.

Respiration. Puerile over the whole of left side, except on approaching the sternal median line, where it assumes a tracheal character. This tracheal respiration is observed over a great part of the anterior part of the right side, where it is very loud and distinct above the mamma, feebler immediately below it, and is almost entirely lost still lower. On the posterior part of the right side, the loudness and tone of the respiration are not by any means so decidedly tracheal as anteriorly; to some, the sound heard appears to be more allied to bronchial respiration, and it is certainly bronchial in one part, near the spine. No rales are audible in any part of the chest.

Voice. At the upper and anterior part of the right side, the voice is resonant, approaching to, if not identical with bronchophony; elsewhere, nothing remarkable was observed with respect to the voice.

Heart. Pulsates in its natural situation, but its sounds are heard over a great extent, being audible under both clavicles, and over the whole of the right side. Right side of chest, during respiration, obviously moves much less than the left, and when he speaks, the hand placed on it feels the vibrations caused by the voice to be feebler on the right side than on the left.

The physical phenomena here detailed remained unvaried until his death, except that all traces of bronchial respiration soon disappeared from the right side of his chest, except at one spot near the spine, and where any thing was heard in other parts it was now evidently a tracheal wheezing which marked all other sounds.—*Dr. Graves, in Dublin Journal, No.* 12.

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exit from the right side impeded; none, or nearly none, passing through the pulmonary artery to the right lung. In truth, engorgement of the venous system, although it may indicate an obstruction somewhere in the central portion of the system of black blood, yet it by no means points out the exact seat of that obstruction: the obstruction may occasionally be even on the left side of the heart. With regard to the serpentine course of the abdominal veins above described, I find several such cases recorded, particularly one by Dr. Wright, of Baltimore, in his contributions to cardiac pathology, and one of a very remarkable nature by M. Renaud, in which the superficial veins of the abdominal parietes carried on a collateral circulation where the vena cava was obliterated."

[The remainder of the case may be told in a few words. The patient died on the 15th of July, and on dissection the right lung was found to be converted into an encephaloid mass weighing more than six pounds. "The heart was pale, and rather atrophied." Besides the other symptoms commonly supposed to denote disease of the heart, a *bruit de soufflet* had been observed, chiefly at the right side of the heart. The diagnosis which had been formed were "aneurism, circumscribed pleuritic affection, and enlargement of the heart; pleuropneumonia, pleurisy, and hepatization, in consequence of previous pneumonia, solidification from tubercles, &c." It must be confessed, that if stethoscopy in general be in its infancy, the cardiac division of the science is in an embryo state; and the lovers of truth must at present propound their diagnosis founded on rasping, cooing, or bellows' sounds, with doubt and modesty.—Ed. *Med. Quart. Rev.*]

CHRONIC DISORDERS OF THE HEART.

Chronic disorder of the heart, whether its action is increased, diminished, or oppressed, is produced by disorder of the stomach, of the liver, or of the bowels.

1. The stomach, being disordered in some individuals, the heart's action is suddenly oppressed or suspended.

I have known it instantly suspended by pork, by tongue, by rich pastry, by heavy dumpling, or any indigestible substance of that kind. In some of these cases the person dies as suddenly as if he were shot through the brain, or through the heart itself. One of the first cases of typhus fever I attended was in a schoolfellow and friend of mine. He was convalescent, and as I was ignorant of this connexion between disorder of the stomach and disorder of the heart, I neglected to give any particular directions as to the quality and quantity of his diet during the state of convalescence. I was sent for one day, and upon arrival I found that he was dead; he expired instantly after having eaten a large and indigestible meal. I have seen other cases of this kind. The only way to save the patient, if you chance to be present, is by diffusible stimulants, as a glass of brandy, the patient being placed in a recumbent posture.

In other cases great oppression of the heart only occurs. The patient is pale over the whole surface of the body; sometimes he falls down suddenly and faints, with a dilated pupil, a blanched conjunctiva, a weak respiration, and a small, struggling, irregular pulse. I saw a gentleman who had been travelling a long way, and at the end of his journey ate some veal pie with a heavy crust. He dropped down insensible, his breathing was feeble, his pulse struggling, his eye blanched, his pupil dilated, and he was in a slight degree convulsed. If you can act on the stomach by an emetic, it is the best plan; but if the stomach be not obedient to an emetic, the patient has the best chance from diffusible stimulants. When persons die in this state you generally find the brain more or less gorged with blood, or an effusion of thin serum into the ventricles or between the membranes of the brain.

2. More commonly than this, there is an intermittent or an inordinate pulse from disorder of the stomach. A person has a torpid liver, uneasiness about the stomach, and a torpid colon: he is subject to very great irregularity of the heart's action, to flushes of heat in the face, to coldness of the feet, and his pulse is frightfully intermittent after a meal. It beats once, twice, thrice; then there is a sudden stop, and then it goes on again. It is to be remedied by acting gently on the liver and bowels, and regulating the diet.

3. Sometimes the heart's action is what is called inordinate. One pulsation is strong, the next weak; then three or four pulsations are rapidly performed, and are succeeded by three or four slow pulsations. This is exceedingly common, from disorder of the stomach. So long ago as the year 1811, I saw a lady who for a long time had been subject to violent palpitations of the heart, and extreme irregularity of its action, so that at length she was unable to walk across the room without assistance. Every now and then she was suddenly seized with great difficulty of breathing, and coldness of the hands and feet, her face was flushed, she was perfectly powerless, and sunk from off her chair upon the ground. She went on in this way for twelve months; she had consulted several physicians, who agreed that she had organic disease of the heart. When I saw her, I thought it might possibly depend upon the stomach; and upon enquiring into her diet, I found it all originated from a small quantity of pastry which she always took once in twenty-four hours, or oftener. By withdrawing this, and giving her a small quantity of animal food, she recovered very rapidly indeed. I saw a lady in London with the same symptoms, with a torpid colon, and a foul tongue. She was supposed to labour under organic disease of the heart by the physicians whom she had consulted. I regulated the diet carefully; I acted gently on the liver, and moderately on the bowels; and all her symptoms disappeared with great rapidity.

If, then, you see a case in which there is irregularity of the heart's action, with a foul tongue, with irregularity of the liver, the stools showing either a deficiency or a depravity of bile; when, indeed, there are any indications of disorder of the stomach, liver, and bowels, be careful of giving an opinion as to the existence of organic disease of the heart. In all these cases, try first to remove the disorder of the stomach, liver, and bowels.

4. The heart's action is preternaturally increased from disorder of the stomach, liver, and bowels. Chronic inflammation, seated in different parts, is chiefly maintained by excitement of the mucous membrane of the stomach operating on the heart's action; and this excitement of the stomach is produced and maintained by daily errors of diet and drinks. A great many chronic inflammations arise, or, if not, are maintained thus; therefore, in all chronic in-

flammations, support the strength, without exciting the heart's action, by carefully regulating the diet. In all chronic diseases, that diet is prejudicial which increases the heart's action and the animal heat simultaneously.—*Armstrong's Lectures.*

PATHOLOGY OF THE FŒTUS.

Dr. Ollivier, of Angers, has some observations on this subject in the *Archives Générales* for May, and narrates three cases of disease in the fœtus not derived from the mother.

CASE I. *Ulceration of the Skin.* On the 24th of April, 1828, a child was brought to Dr. Ollivier, labouring under a rare variety of club-foot, the back of each foot being directly applied to the anterior part of the leg. Above the left malleolus externus, and in the fold formed by the forced flexion of the foot upon the leg, there were two ulcerations of the skin, with a grey centre, and very red, bloody edges, looking like a fresh burn of the second degree. The right foot internally, and over the whole extent of its dorsal surface, presented a large scar of a yellowish grey, surrounded by a very red and bleeding inflammatory edge. This disease of the skin, like the one in the other leg, had the greatest resemblance to a recent burn.

Dr. Ollivier treated the case successfully by ordering the feet to be extended by a bandage, and the ulcerated surfaces to be covered with Goulard's cerate.

The author observes that this case shows one of the uses of the liquor amnii. Under some circumstances, the absence of the contact of atmospheric air makes the skin assume the characters of a mucous membrane. The skin becomes red, inflames, and softens; the epidermis is no longer visible, and its surface becomes covered with a copious exudation, quite similar to the mucus which labricates mucous membranes. This may be seen in the deep folds caused by the flexion of the limbs in very fat infants; and the same phenomenon is caused by muscular contractions of long standing: in fact, wherever the skin, by being in contact with itself, is withdrawn from the direct action of the air. The curious case just related shows that a faulty position of the limbs of the fœtus produces a similar effect, by withdrawing the skin from the influence of the fluid which moistens it, and performs the office of the atmosphere during the intra-uterine existence of the fœtus. This is, no doubt, the origin of those preternatural adhesions which accompany some monstrosities.

CASE II. *Warty Excrescences over a great part of the Body.* On the 12th of last April Dr. Ollivier was desired, by *M. le Procureur du Roi*, to open the body of a fœtus found in the Seine the day before, in order to ascertain the cause of its death. It seemed to have arrived at its full time, and to have been in the water about three weeks.

On the whole front of the chest, and on the abdomen, especially its upper part, there were an infinite number of warts of a greyish white, several of which were as large as a lentil. They all had pedicles, and the largest were fissured through the greater part of their substance. On detaching the epidermis, which putrefaction had separated, from the skin, it was seen that all these excrescences penetrated it, without being covered by it; and dissection showed that they were rooted in the skin itself, and even in the subcutaneous cellular tissue. But this warty vegetation was not found only on the anterior part of the chest and abdomen; it likewise existed on both shoulders, and both arms, as far as the elbow, particularly outwards and rather backwards; and on the thighs and nates, also outwards and backwards only. These regions were covered on the right and left for the same extent with a considerable number of small warts, which gave the skin a grained appearance; several of them had the yellowish colour of ephelides, so that at a distance it might have been thought that the skin was suffering merely from this discoloration. All the viscera of this fœtus were healthy.

If the affection of the skin just described resembles, in its anatomical characters, the disease which occurs at other periods of life, it is remarkably different in its development; for warts, which are so often found on the surface of the skin, ordinarily occur only on some isolated points, and do not cover, as they did in this case, a great portion of the body, occupying in a symmetrical manner the same region on the four limbs. The only case in an adult having some resemblance to this one is mentioned by Pechlin, (*Obs. Phys. Med.* Hamburg, 1641, 4to. Lib. 2. Obs. 44.) who saw a surgeon, the whole surface of whose body was covered with a great number of warty excrescences.

The case narrated above shows, in contradiction to the opinion of Corry, that warts may be congenital: *Nunquam connatæ sunt verrucæ,* he says, (*Tract. de Morb. Cut.* Paris, 1777, 4to. p. 542.) It is possible that cases of this kind may have been taken for instances of congenital venereal disease; but here no mistake could be made, for there was no resemblance between these and syphilitic warts.

Case iii. *Subcutaneous Abscess in a Fœtus about Three and a half Months Old.* The author, in making a medico-legal examination of this fœtus, found on the right and anterior half of the neck a tumour as big as a hazel-nut, its yellowish white colour forming a strong contrast with the reddish tint of the rest of the body. The tumour was soft, with fluctuation, and extended from the base of the lower jaw to the right sterno-clavicular articulation. An incision was made, and gave exit to a white, creamy, inodorous pus, situated under the skin, which it separated from the subjacent muscles. The integuments around this collection of pus were in their natural state.

It may be suspected, indeed, that this abscess was caused by attempts to procure abortion; but it is just as probable that it may have been the consequence of a spontaneous phlegmon.

PHLEGMASIA DOLENS IN MEN.

The Phlegmasia Dolens, that white elastic swelling, generally of one, very rarely of both the lower limbs, attended with great pain and soreness, is supposed to be peculiar to female nature, indeed to women after lying-in, and was formerly considered and miscalled a "Depôt du lait."

But a more accurate pathology has exploded the notion of its being a deposit of milk, and has assigned causes for the disease, which do not preclude the other sex from a liability to it. Indeed, a most respectable general practitioner has expressed such a belief, and I am much mistaken if I have not seen it in three instances, within the last few years, in men; and if the suggestions of some intelligent practical writers, who have attributed the disease to an inflammation of the veins of the pelvis be correct, there is no reason why men should not occasionally contract the malady, though it will be easily admitted that the long-continued pressure of the pregnant uterus on the iliac veins, and the violent change which that part of the female system undergoes by parturition, must render women more frequently the subjects of this complaint.

Perhaps you will allow me to give two of these cases in some detail; and I beg you to bear in mind the notion of an inflammation of the veins of the pelvis as the origin of the painful affection; because I think their history serves much to confirm the correctness and truth of this notion.

The late Earl of L. suffered with this disease many years before his death, and bore marks of it to the last, in a swelling of the left leg and thigh, and in the varicose state of the veins from the ankle to the groin. He was attended by the late Dr. Pemberton in the first instance, and the symptoms were palliated from time to time; but he remained subject to repeated attacks of the same painful malady; and I am persuaded that the obstruction to the circulation of the blood, occasioned by the original inflammation, gave rise at length to that disease of the brain which incapacitated him for the business of his great office, and ultimately deprived him of life.

When I first attended him, some three years before his death, I found him subject to temporary congestions in the liver, which were relieved by small repeated doses of calomel, followed by purgative draughts containing neutral salts. But there was something extraordinary in his pulse which attracted my particular attention. It was most unusually slow, beating only forty-four pulsations in a minute, whereas I learnt that the original habit of it was to give seventy-four strokes in that space of time. This was ingeniously conjectured by Sir Astley Cooper, who had attended him with Dr. Pemberton, and had witnessed repeated attacks of the inflammation of the veins, to be attributable to an obliteration of the external iliac vein of the side affected, by which the blood was returned to the heart more slowly, and the vital organ was not stimulated thereby to contract itself till after longer intervals than had been its custom. The good reason and propriety of this conjecture was abundantly confirmed by examination of Lord L.'s body after death, when the left external iliac vein was found to be impervious for several inches, and, what is remarkable, the corresponding vein on the right side was ossified.

It is not improbable that the stroke of apoplexy which brought his life into imminent hazard when it occurred, and which destroyed his mental powers for the whole year during which he survived it, was referable to the same obstruction to the return of the blood towards the heart from the lower extremities; nor was it unlikely that a large accumulation of blood in the sinuses of the brain (in consequence of an impediment to its free ingress from the vena cava descendens, into the right auricle, caused by the heart's preternatural delay in contracting,) should occasion an effusion of serum into the brain. This was the case in fact; and at least four ounces of lymph were deposited in its substance, in an unnatural cavity extending from the roof of the ventricle to the pia maternal covering of it. Lord L., sometime previously to the apoplectic seizure, had complained of an imperfection in his vision, and used to remark that he missed a word or two in every line; but, after the blow was struck, he lost the power of speech almost altogether. Epileptic fits followed, at uncertain intervals, and in one of these he expired. Alas! how fearfully and how wonderfully are we made! and on what a thread does this proud distinction of man, his reason, and his life, depend! What momentous consequences do sometimes follow the slightest derangement of the economy of our curious fabric! This inflammation of the vein, from whatever cause it arose, (the most probable one was, exposure to a cold March wind in a rather thinner dress than usual,) appeared to give way to appropriate remedies, and was not thought of any importance beyond the pain and inconvenience which it occasioned at the moment; but it was destined to produce a tragedy, sometime after, of unusual interest and distress. Lord L. married subsequently to the first attack of the disease, and was directing the affairs of this great nation at the height of its glory, when the matured consequences of this disturbance of the circulation, by a common cold, deprived him of his intellect and of his life.

Another case of this disease presented itself to me, in the person of an officer of high military reputation, who fell ill under symptoms of an inflammation of his chest. He had already been bled, and had taken physic, when I saw him, and was complaining of acute pain in the region of the liver. This was met by a further loss of blood by cupping the right side; soon after which a deep-seated pain attacked him in the left groin; here sixteen leeches were applied, and the part was fomented. On the following day, the thigh and leg were considerably swollen; some knots could be felt in the course of the veins, and the lymphatics of the surface manifested themselves in red streaks. Here again the inflammation and soreness were treated by more leeches, and cold lotions; and a necessity for their repetition occurred three several times more on account of the pain, once again above the knee, twice in the leg.

At length the fire was extinguished, but the limb has continued swoln, though to a less degree, ever since. However, some baths on the Continent, and a bandage, have reduced the inconvenience so much, that it interferes now but little with the comforts of life. But my patient returned to town, this last autumn, under considerable anxiety and alarm, on account of a notable intermission which had been discovered in his pulse; the importance or no importance of which some time will be necessary to ascertain; but this symptom will induce me to look with suspicion upon, and to watch with jealous care, any affection of the head, should it arise.

As to inflammation of the veins, generally, it is not my purpose to discuss this question on the present occasion, nor to enter into consideration of the various opinions which pathologists have entertained of the nature of the symptoms which arise in that state. We all know that injuries done to veins by accidents are apt to produce a disease which proceeds most rapidly to the destruction of life, and that this is much less frequently the case where the inflammation has arisen spontaneously. Probably the admission of air into their cavities, as would often be the result of an injury, may make the difference. No; my object, in this short paper, has been merely to assist in doing away the opinion that phlegmasia dolens is peculiar to women; and to confirm, as far as these two cases may be thought to confirm it, the later and better philosophy of the disorder.

I would add, that I think it worth your future attentive consideration, and inquiry, whether the irregular intermittent pulse, so frequently observed in the decline of life, may not be traceable to some past unheeded inflammation in an important vein, and to a consequent impermeability or obliteration of its channel.—*Sir H. Halford's Essays and Orations.*

HYPERTROPHY OF THE MAMMÆ.

A case of this nature came under my observation in May last. The subject of the affection was a girl nineteen years old, a respectable farmer's daughter; she was of good constitution, rather robust make, and sanguine temperament. From the account given by the surgeon in attendance, it appeared that she had never menstruated, but had occasionally suffered from pains in the head, back, and abdomen, which, so far as he was enabled to judge during a period of three or four months, seemed to coincide with those which usually forerun and accompany the eruption of the menses, observing likewise a similar periodicity in their recurrence. The treatment he had adopted had been limited to emmenagogue pills of aloes, myrrh, and calomel, with saline aperients, and the occasional application of leeches behind the ears. The enlargement of the breasts had been first noticed when she was seventeen years of age, their development having commenced at fifteen. The girl described her feelings in the breasts up to about her eighteenth year as rather pleasant, experiencing hot, tingling sensations in them. After this time she felt nothing to attract her attention to them, unless the occasional feeling of a dull, heavy pain in the breasts, which was generally the worst at those times when she was afflicted with the headachs and pains in the back. When I visited her she was in perfect health; but her appearance was rendered remarkable by the extraordinary size of the mammæ, which she represented as exceedingly burthensome when deprived of the support afforded by her stays. On measuring the glands while she lay in bed, the circumference of the right breast was found to be upwards of twenty-three inches, and that of the left about twenty-three inches; while retained on the chest by the hand, their height amounted to seven and a half inches.

Conceiving that this was a case of postponed menstruation, in which the nutritive vessels of the mammæ had become vicarious of the excretory function of the uterus, and that their inordinate activity had now become the cause of the suspension of the catamenia, we determined on employing such remedies as might, by exciting the absorbents of the mammæ, counteract the undue textural deposition, at the same time that they would, by expediting the absorption of medicines given for the purpose of eliciting the uterine flux, the more speedily induce their operation. On the 18th May she was ordered to take ten grains of the ergot of rye twice, with one of the following pills thrice a day: ℞. Pilulæ Hydrargyri gr. xxiv., Iodini gr. xii. Morphiæ Muriatis, gr. j. Confect. Aromaticæ ℈ss. Ft. Massa in Pilulas xii. dividenda.

With these medicines she persevered until the 25th, when, having an attack of the symptoms of which she used to complain, I was requested to see her again, and then ordered her to be blooded to twelve ounces, and to be placed in the hip-bath, which produced very considerable relief, but no appearance of vaginal discharge. On the 28th, the pills were suspended, as her mouth had become affected by the mercury. She still continued the ergot until I saw her on the 3d June. At this time, more than a fortnight from the commencement of her treatment, there was no advancement made towards the removal of the cause of the affection; the breasts themselves seemed in no way altered; but, as she was still under the influence of mercurial fever, it was thought advisable to discontinue all medicinal treatment.

About the 16th of June she was directed to recommence the ergot of rye, taking ten grains thrice, instead of as previously, twice a day. With this she continued for a week, when, on experiencing a return of her periodical ailments, there was observed a slight appearance of sanguineous discharge from the vagina, which continued for four or five hours. She was now recommended to give up her medicines for a time, but to resume them every month for a few days before the succeeding menstrual evacuation was to be expected. With this advice she proceeded for two months, at each period having an imperfect vaginal discharge. On the third month she again began to take iodine, ten drops of the tincture three times a-day, in a wineglassful of water, and the ergot of rye as usual. Her menses appeared at the due time, and more abundant in quantity. From this time the ergot of rye was entirely discontinued. With the tincture of iodine she persevered for upwards of a month, when it was thought necessary, in consequence of some uneasiness of the throat and fauces, to suspend it. On examining the breasts, in September, they were found to have lost about one-sixth of their volume. As she appeared now to be doing well, and the natural operations of the organs to be established, she was advised to trust to her own physical energies for the completion of what seemed the commencement of a removal of her affection.

When I saw this female, in the latter end of November, she was in perfect health, her catamenia had continued to appear regularly, and her breasts had suffered a very surprising diminution; so much indeed, that she was not only relieved from the inconvenience of which she originally complained, but their volume was scarcely greater than the usual size.—*Monthly Archives.*

TRIPLE QUOTIDIAN AGUE.

Charles Comins, æt. twenty-nine, an Irish labourer, applied to Dr. Duncan, on the 4th of March. He stated, that each day he had three distinct attacks of rigors, followed by heat and sweating; viz. at six A.M., eleven A.M., and six P.M. In July last he had worked at the harvest in the Black Fen; the first attack of ague took place three weeks ago; he had used no remedies.

He was ordered to take immediately a scruple of the Pulvis Purgans of the Dispensary Pharmacopœia (containing about sixteen grains of Jalap and four of Calomel,) and four grains of the Sulph. of Quinine every four hours.

On the 5th, he had only one attack of rigors, but on each of the three following days he had two attacks. At the end of a week the ague had entirely left him, but he continued the quinine, in diminished doses, for ten days longer. On the 5th of April the ague returned, but under the form of a double Quotidian only. It readily yielded to the quinine, given as before, after a brisk cathartic. —*The Liverpool Med. Journal, June.*

MISCELLANEOUS.

KING JAMES'S COUNTERBLASTE TO TOBACCO.

In the reign of James the First the habit of smoking was so universal in England, that a large proportion of his Majesty's liege subjects had become little better than walking volcanos; whereupon that learned and facetious monarch, distressed at the prevalence of so outlandish a custom, was at the trouble of writing a "Counterblaste to Tobacco," in which he exposes the turpitude, as well as the insalubrity of this horrible practice. He shews the baseness of its origin in the use made of it by the Indians for the cure of a certain disreputable malady, " whereunto these barbarous people are (as all men know) very much subject, what through the uncleanly and adust constitution of their bodies, and what through the intemperate heat of their climate; so that as from them was first brought into Christendome that most detestable disease, so from them likewise was brought this use of tobacco, as a striking and unsavourie antidote for so corrupted and execrable a maladie; the stinking suffumigation whereof they yet use against that disease, making so one canker or venim eate out another."

" Now to the corrupted baseness of the first use of this tobacco doeth very well agree the foolish and groundlesse first entry thereof into this kingdome. It is not so long since the first entry of this abuse amongst us here, as this present age cannot yet very well remember both the first author and the forme of the first introduction of it amongst us. It was neither brought in by king, great conqueror, nor learned doctour of physicke. With the report of a great discovery for a conqueste, some two or three savage men were brought in, together with this savage custom. But the pitie is, the poore wild barbarous men died, but that vile barbarous custom is yet alive, yea in fresh vigor."

His majesty introduces some original physiological and pathological views. The operation of the noxious weed as a sialogogue is thus illustrated, in opposition to those who maintain that it acts beneficially by purging the head and stomach of rheums and distillations: " The fallacie of this argument may easily appeare by my late preceding description of the meteors; for, even as the smoakie vapours sucked up by the sunne, and stayed in the lowest and cold region of the aire, are there contracted into clouds, and turned into raine and such other watery meteors, so this stinking smoake, being sucked up by the nose, and imprisoned in the cold and moyst brains, is, by their cold and wet facultie, turned and cast forth againe in watery distillations, and so are you made free and purged of nothing but that wherewith you willfully burdened yourselves."

The post-mortem appearances in inveterate cases of fuliginous disease are duly recorded.

" Surely smoke becomes a kitchen farre better than a dining chamber, and yet it makes a kitchen also oftentimes in the inward parts of men, soyling and infecting them with an unctuous and oily kind of soote, as hath been found in some great tobacco-takers that after their death were opened." A state obviously irremediable, unless Archeus, in the multiplicity of his functions, should assume that of a chimney-sweep.

The blast of the royal horn winds up in the following energetic expostulation:

" Have you not reason then to be ashamed, and to forbeare this filthie noveltie, so basely grounded, so foolishly received, and so grossly mistaken in the right use thereof? In your abuse thereof sinning against God, harming yourselves both in persons and goods, and raking also thereby the markes and notes of vanitie upon you; by the custom thereof making yourselves to be wondered at by all forreine civill nations, and by all strangers that come among you to be scorned and contemned; a custome loathsome to the eye, hateful to the nose, harmefull to the braine, dangerous to the lungs, and, in the blacke stinking fume thereof, nearest resembling the horrible Stigian smoake of the pit that is bottomless."

Notwithstanding all this, we strongly suspect that if the worthy monarch could once have been brought fairly under the influence of a good cigar, he would have found it so congenial to his lazy and contemplative disposition, that he would have revoked the Counterblaste and written a Currus Triumphalis è Tabacco.

STATE OF DRUGS IN LONDON.

In our administration of medicine, we expect and assume an identity of operation, from things widely different in their elementary nature and composition. There is, I was assured only the other day, by a very intelligent chemist and druggist, a difference of 300 per cent. in the quality of certain articles of the Pharmacopœia, on sale in different shops. This was his own unreserved expression; and the statement may be verified by any one who will take the trouble to examine samples from various retail stores in the city of London. Indeed, this difference in the quality of certain drugs may be at once assumed, from the difference of prices in the bills of parcels from various wholesale houses. I have known this difference range from 12s. to 20s., from 1s. 8d. to 6s.; and this in medicines declared to be of the best quality, and furnished to a great public institution, where it was known that they would be submitted to a fair competition, and would be carefully examined by a competent professional committee. It is not likely that better drugs than the worst of these should be furnished to the solitary practitioner of the retired hamlet. Now, even admitting a range in what may be termed the fancy price of drugs, as measured by an imaginary excellence of colour and other properties of appearance, there still would be an alarming difference in their money value, only to be accounted for by a difference in their useful medicinal properties. By all great dealers this variety is admitted; and yet, be it remembered, every variety finds a purchaser. A great deal of this pernicious trash is disposed of to the London market; but the greater part of it, I am told, "goes into the country." The respectability of the drug trade has been greatly lowered by the demand of the retail dealers for these low-priced inferior samples. I have heard this stated by respectable druggists, who have lamented that it should be so. Those who conduct the trade with a sufficient capital, a capital enabling them to make a selection in the market, and who are impressed with the responsibility of their business, would, I am sure, be very glad to assist in placing it on a footing, which, by affording more security to the public, would imply its greater respectability. There are some houses where wonderful pains are taken to insure excellence in the medicines furnished, and accuracy in the preparation of them. Like every thing in London that is fairly taken up, the business in these houses is done to perfection. Of all the numerous trades and corporations of our citizens, there is, indeed, no one more intelligent, and in every way respectable, than the better, I mean by this the scientific, class of our druggists.

I will not enlarge on the mischief that must ensue to the public from the circulation of so much bad physic; the nuisance is gross and palpable; the simple expression of it is its strongest condemnation; and it does not attach to me more than to others to exclaim against it; but I may be permitted to express my sincere regret at the uncertainty in which it involves the science of medicine, and the discredit which it brings on its practice. In prescription no one now knows what he orders. How, then, can he presume to calculate upon the effects of his prescriptions, or to reason on them when obtained? From this constant source of error, I find it impossible to procure any information as to the effects of varied doses of medicine that can be at all depended on.

In the very outset of the Materia Medica, in the study of its elements, we are met by this perplexity, arising from the abuses of the drug trade. There is another bar to our improvement in the knowledge of drugs, as connected with the sale of them, which is the way in which they are dispensed. The materials may be of good average quality, yet may be compounded in wrong proportions, or by a process of manipulation inconsistent with the intentions of the prescriber. From the general ignorance among medical men on the subject of drugs, the prescriber may often mistake his medicines and their doses; he may be, and he often is, careless, or by chance inaccurate, but securities are taken from the Physician by age and education, to prevent, at all events to limit, his means of injuring the public. The compounder of his prescription is in most instances amenable to no inquiry, to no tribunal. In a shop that has been mentioned to me, a common porter has been habitually employed to compound medicines; and I have recently met with an instance in which the entire business was carried on, for months together, by a widow, with an infant in her arms. Boys and women have not unfrequently, in my own observation, been found in charge of a shop and its business during the absence of "the master."

The consequences are best illustrated by the police reports of the daily papers, and by such advertisements as the following: "The gentleman who purchased the carbonate of soda, tartaric acid, and sp. lavendulæ comp. is requested not to use them, but to apply for information as soon as possible."—See Morning Herald, Sept. 8, 1829. Some of those now present may remember the attempts which I made, in my lectures of last year, to direct the attention of the College to the disgraceful uncertainty of the preparations of Colchicum in the different shops of this metropolis. In some the "Vinum Colchici" is a wine of the fresh root; in some a spirit of the dried root, or a spirit of the fresh root, and a wine of the dried; a wine of the seeds, or spirit of the seeds; varying again in the quantity of the ingredients, and in the time given to the preparation. In no two shops, visited consecutively, would the Vinum Colchici, as ordered by the Pharmacopœia, be met with; and certainly in no two would it be found to possess the same degree of strength.

In a tour of visits made officially to the retail shops, it was found that the "Cathartic Extract" was hard and black in all places but one, where it was soft and mouldy, being "seldom asked for." A proprietor of Senna Confection candidly acknowledged, that the light brown, dirty-looking compound, was not fit for "human medicine, but it might be worked up into boluses for horses." Oxalic acid was generally met with in a large bottle, on the lower shelf, and in front of the shop, next to sulphate of zinc, and other salts. White arsenic was in most instances kept as a powder. It was seldom marked "poison," and it did not appear that any precaution was observed in its sale. In more than one instance I found this deadly agent in a bottle bearing two different labels on its opposite sides.—*Med. Gazette.*

MR. RICHMOND'S MUSICAL PERFORMANCE.

The effects produced are the following: two series of sounds are heard; one exactly resembling the notes of a musical snuffbox, the other a succession of bass sounds; or a drone, which necessarily goes along with the higher notes.

Of the two series of notes, the first, or those which resemble the tones of a musical snuffbox, are not produced in the larynx; the second or the bass notes, on the contrary, are laryngeal. Mr. Mayo ascertained these points by the following observations. It is well known, that when sound is produced in the larynx, on its becoming grave the larynx always sinks in the throat; on its becoming sharper, the larynx always rises. But in Mr. Richmond's performance the larynx does not change its position with the alteration of the higher series of notes; while, on the contrary, it manifestly rises and falls with the alterations of the bass sound.

The bass sound then is laryngeal; but how are the higher tones produced?

The principle was originally discovered by Mr. Wheatstone, in analyzing the production of the musical sounds of the Jew's-harp, and by him shewn to apply to Mr. Richmond's performance. It is this.

Different volumes of air, like strings of different lengths, vibrate with different frequencies, and produce therefore different notes. Now if a vibrating tongue, such as that of a Jew's-harp, be made to vibrate before a volume of air, the vibrations of which are of the same frequency, the sound of the musical tongue causes the volume of air to vibrate, and two sounds in unison are produced. But suppose the volume of air not to be unisonant with the tongue of the Jew's-harp, in some cases the volume of air will speak, or be thrown into vibration, in others it will not. A second sound will be produced, Mr. Wheatstone discovered, when the volume of air is one which vibrates multiples of the sound of the musical tongue. If, for instance, the tongue of the Jew's-harp vibrate 32 times in a second, volumes of air, that vibrate 64, 96, 128 times in a second, will be thrown into vibration through its vibrations. The skill of the performer on the Jew's-harp consists in shaping the cavity of the mouth so as to hold in succession such definite volumes of air as, being presented to the vibrating tongue of the instrument, reciprocate different multiples of the bass sound it produces.

These multiples are not found in sufficient number to contribute to the performance of a melody till the third octave above the bass sound, nor without the use of more bass sounds than one. Mr. Eulenstein, in his performance on the Jew's-harp, uses six instruments, rapidly substituting one for another, as he wishes to use multiples of a different bass sound.

In Mr. Richmond's performance the larynx is equivalent to the Jew's-harp in Mr. Eulenstein's, but, with this advantage in favor of the former, that it is much easier to alter the tension of the vocal chords in the larynx than to lay down and take up the Jew's-harp. The rest of the performance is exactly the same. The cavity of the mouth is shaped to reciprocate multiples of the bass notes, in a succession which forms a musical air. H. M.

THEORY OF ANIMAL MAGNETISM.

I shall conclude this paper with the following observations: For some time past, our physiological theories have manifested a decided tendency towards materialism. Of late, indeed, we seem to have got so much into the habit of speaking of the mental functions as being performed by certain organs, that we would appear to have entirely forgotten that every organism requires to be vivified by an active principle, that the employment of an instrument presupposes the existence of an intelligent agent. In our speculations upon these matters, we become so much interested in the play of the puppets, that we totally overlook the moving power; while contemplating the conditions of intelligence, we become blind to the principle.

But sensation and thought, as has been frequently remarked, are neither the properties nor any of the necessary effects of matter: material structure alone cannot be the cause of the vital phenomena; it may supply the organs or tools through the medium of which these are ostensibly manifested, but these manifestations cannot take place without the operation of an intelligent cause. "That there is some invisible agent in every living organized system, seems to be an inference to which we are led almost irresistibly. When we see an animal starting from its sleep, contrary to the known laws of gravitation, without an external or elastic impulse, without the appearance of electricity, galvanism, magnetism, or chemical attraction; when we see it afterwards moving its limbs in various directions, with different degrees of force and velocity, sometimes suspending and sometimes renewing the same motions, at the sound of a word or the sight of a shadow, can we refrain a moment from thinking that the cause of these phenomena is internal, that it is something different from the body, and that the several bodily organs are nothing more than the mere instruments which it employs in its operations?"*

In the human economy, this invisible agent, this intelligent principle, which operates through the medium of certain corporeal organs, is called the soul. In the normal state of the organism, we know that our faculties of sensation and perception, at least, are exercised through the instrumentality of certain material organs, and hence physiologists have been led to consider these instruments as the necessary conditions of the exercise of these faculties. But are we prepared to maintain that, in any circumstances, the soul is incapable of exerting its energies in a different manner? Do we hold that it is the eye alone that sees, the ear alone that hears, &c. or shall we admit that there is an internal sense to which the impressions of sight, hearing, &c. are conveyed, and to which the material organs are merely subservient? And if we are disposed to make this admission, can we deny the possibility of impressions being communicated to this internal sense, in some extraordinary manner, without the necessary intervention of the usual organs? This is a question which is capable of being solved by experience; and if the cases I have adduced in this paper have been accurately observed and faithfully reported, of which there seems no reason to doubt, the question may be considered as having been already satisfactorily decided in the affirmative. If the phenomena observed are calculated to excite our wonder, and to call forth our scepticism, if they appear to be inexplicable and irreconcilable with any of our previous notions, let us remember that the cause of this may be found in the narrowness and imperfection of our preconceived systems; and this consideration should lead us to a careful review of the principles of our knowledge, rather than to an obstinate and irrational denial of the facts presented to us by experience.

> Nil adeo magnum, nec tam mirabile quidquam,
> Quod non paullatim minuant mirarier omnes.
> Desine quapropter, novitate exterritus ipsa,
> Expuere ex animo rationem; sed magis acri
> Judicio perpende: et, si tibi vera videntur,
> Dede manus; aut, si falsum est, adcingere contra.—LUCRETIUS.

—*Colquhoun on Animal Magnetism.*

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* Barclay, on Life and Organization, p. 370.

Proceedings of the Practical School of State Medicine in the University of Berlin, during the Summer Semester of 1833. *By* Dr. Wagner, *Professor and Stadt-Physikus.*

The number of students who attended this course amounted to thirty-four; among whom were several doctors of physic and other licensed practitioners, most of them anxious to prepare themselves practically for the physicate examination. The number of cases submitted to us for medico-legal inquiry was 129, almost every one of them adapted for the instruction of the class. Reports, written out and argued, some of them in much detail, were severally drawn up on those cases.

A good deal of other business also was allotted to the students: for example, they had the opportunity of opening many bodies which did not absolutely require forensic investigation; these were the bodies of suicides, drowned persons, and of individuals who had been poisoned with sulphuric acid, &c. The chemical research was conducted in the latter cases, as well as in some inquiries connected with medical police, the adulteration of articles of food and medicine, for instance, by Dr. Gusserow: to him, and to Mr. Baerwald, the apothecary, who favoured us with the use of his laboratory, we have to acknowledge ourselves deeply indebted.

Of the 129 medico-legal cases, 113 related to living people, fifteen to persons found dead, and there was one case of poisoning with arsenic. Of the investigations on the living, ninety-four were concerning bodily injuries or ailments, and nineteen had reference to the state of the mind. Among the former, we were called upon to determine whether certain individuals who were arrested for debt, were able to endure the severity of imprisonment? whether others were fit to be brought up for trial, or to be removed from their homes? and whether certain persons were well enough to perform the duties of their respective offices? &c. Several of the alleged ailments in these cases turned out to be factitious, either altogether feigned, or whatever was really amiss was grossly aggravated: most of them were absurd complaints about chest affections, pains in the limbs, headachs, and piles. Where positive bodily injury had been inflicted, we were required to give our decision whether it came under that class denominated by the law injuries of a grievous nature, or whether (within the meaning of the criminal code) it involved a hazard of life, or was likely to entail a permanent mischief on the constitution or the limbs.

Among the remarkable cases of this kind which came before us, was the following one of attempted abortion. A young woman, seven months gone with child, had employed savine and other drugs, with a view to produce a miscarriage. As these had not the desired effect, a strong leather strap (the thong of a skate) was tightly bound round her body. This too availing nothing, her paramour (according to his own confession) knelt upon her, and compressed the abdomen with all his strength: yet neither did this effect the desired object. The man now trampled on the girl's person while she lay on her back; and as this also failed, he took a sharp-pointed pair of scissors, and proceeded to perforate the uterus through the vagina. Much pain and hæmorrhage ensued, but did not last long. The woman's health did not suffer in the least, and pretty much about the regular time a living child was brought into the world, without any marks of external injury upon it. It died indeed four days afterwards, but its death could not be traced to the violence inflicted on the mother's person: all the internal organs appeared normal and healthy.

Three cases of violation (stuprum puellæ immaturæ) were submitted to us. The subjects were children of from three to eleven years of age. Positive signs of actual violation could not be made out, but that the attempts had been made was quite clear. In one case, a venereal infection had been communicated.

In a couple of divorce cases, the husband was in one instance charged with having a venereal taint in his constitution, but it could not be proved; and in the other, the wife, who was already advanced in years, was ascertained to be unfit for one of the ends of matrimony, from peculiar malformation, or want of development of the sexual organs.

Among the cases which involved inquiries into the state of the mental faculties, fifteen were of a civil, and the other four of a criminal nature. The former related chiefly to the ability of managing property, and the removal of guardianship where recovery was alleged to have taken place. In one of these instances the individual was deaf and dumb. The criminal inquiries were concerning persons who had usurped nobility, resisted the lawful authorities, or committed homicide under circumstances which made it questionable whether they were responsible agents.

In our medico-legal examinations of the dead, we met with two cases which had terminated fatally in consequence of fractures of the skull, with extravasation of blood into the substance of the brain. In another instance, several injuries had been inflicted on the integuments of the head by a blunt instrument, but without any apparent mischief to the bones of the cranium. The parts got well in the course of a few weeks, and no disturbance of the intellectual faculties had been observed. But all of a sudden the patient became comatose, and died in a few days. On examining the cavity of the head, there was not only found a deposition of pus between the skull and the dura mater, but beneath the latter such a quantity of purulent fluid effused, that the left hemisphere was completely compressed by it, and reduced to an ash-coloured substance; but the right hemisphere and cerebellum were in a normal state.

In a child that had been run over and killed, the spleen and left kidney were crushed, and in consequence much blood had been effused into the abdomen and cellular substance about the kidney.

No external injury, however, except a very slight excoriation, was observable on the body.

We met with but a single case of infanticide; yet that one served to afford us ample opportunity for examining the various tests employed in those investigations.

One of the students of the class lost his life through a wound received in dissection, whereby the great vessels of the forearm, near the elbow, were fatally injured.

Several questions were investigated relative to the causes and consequences of alleged lesions, and with a view to determine whether certain wounds had been absolutely, or only contingently mortal. These inquiries involved many complicated considerations, a somewhat detailed account of which Dr. W. gives.

We were also called upon medico-legally to examine a human skeleton, which was found in a tolerably perfect state in digging up the foundations of a building. It belonged to a male subject of about the age of fourteen. No injuries could be detected upon it. But the point to be ascertained, if possible, was, whether this skeleton had lain in the earth above twenty years or not, as this was material with reference to its affording the corpus delicti for a criminal proceeding. An accurate scrutiny of the state of the parts, with especial regard to the nature of the changes which subjects undergo when interred in different soils, gave us reason to infer that this skeleton had been buried perhaps about twelve or fifteen years in the spot where it was found.

The following case of suicide was remarkable. A criminal, who had been shut up alone in a dark dungeon, when visited by his keeper, not long after, was found lying dead on the floor. It was thought at first that he had had a fit of apoplexy. A vein was opened, and other means of recovering him were tried, but to no purpose. It was now for the first time noticed that he had a foreign body in his mouth; and, upon examination, it proved to be a piece of woollen cloth two ells long and a quarter broad, a shawl, in fact, which the wretched man had thrust into his throat. Had this person been found dead under other circumstances, what reason would there not have been for suspecting that he had been murdered by a strange hand!

A case or two of malapraxis also came before us, particularly one in which, through the bad management of a midwife and an accoucheur, a woman had been allowed to sink after delivery, from uterine hæmorrhage.

And lastly, we investigated a solitary case of poisoning, in which a child had drunk from a cup that contained fly-poison (a preparation of arsenic.) Death ensued in twelve hours. But, notwithstanding the most minute search of the intestinal canal and its contents, not a vestige of the deleterious substance could be detected. This was most probably owing to the very small quantity taken, and the evacuation effected by the vomiting.—*Dr. Cummin, in Med. Gazette.*

JOHN HUNTER.

In conclusion, gentlemen, let me express to you my conviction, that, as a physiologist and surgeon, John Hunter has had no equal in any age or country; that he was one of those powerful minds, appearing only at long intervals, of which this island, small as it is, has produced so great a number; that his name must be inscribed on that bright constellation of genius which already bears those of Harvey and Sydenham, of Bacon, Locke, and Newton, of Shakspeare, Milton, Scott and Byron. These gifted mortals, with kindred spirits, who have drawn inspiration from their example and works, shed over our land an intellectual glory equal to its renown in arts and in arms. The bosom of every Englishman glows with an emotion of conscious pride at the enumeration of these revered names. If, gentlemen, the time should ever come, when the institutions and the power of our beloved country shall have passed away, their memory would linger round the spots consecrated by their earthly labours; the land on which they trod would still be a watchword to the earth;—it would be peopled with the glorious recollections of its departed sages, as the sight of Greece recalled to the truly noble poet, who yielded up his life on her classic soil, the heroes who had fallen in her defence:

> "They fell, (he says,) devoted but undying;
> The very gale their names seemed sighing:
> The waters murmured of their name;
> The woods were peopled with their fame;
> The silent pillar, lone and gray,
> Claimed kindred with their sacred clay;
> Their spirit wrapped the dusky mountain,
> Their memory sparkled o'er the fountain,
> The meanest rill, the mightiest river,
> Rolled mingling with their fame for ever."

—*Lawrence's Hunterian Oration.*

SYMPTOMS OF PAIN IN THE HORSE.

Pain is a symptom of most diseases; one that originates in disturbance or impression of the nervous textures distributed over the body. Speechless as the horse is, yet, as he is well known to possess many ways of making his wants understood in health, so in numerous instances under disease does he (to those acquainted with his ways) point out the seat, the kind, and the intensity of his sufferings, with an instinctive sagacity hardly to be credited by persons who are strangers to his manners and habits. The drooping, dolorous, desponding eye, in several chronic disorders; the wistful looking back at the flank, in pneumonia; the fearful, and even supernatural vividness of the eye in colic, just as the approach of another paroxysm is felt; together with the wild phrenzied roll of it, in times of violent pain and delirium; are so many examples of morbid physiognomy not to be misinterpreted by the practitioner of experience. Thus we may apply to horses what Sir Thomas Brown has said of men: "In long observation we may acquire a physiognomical intuitive knowledge, judge of the interiors by the outside, and raise conjectures at first sight."

[From *Hippopathology, a Systematic Treatise on the Disorders and Lamenesses of the Horse*, by Mr. Wm. Percival. It would be absurd in us to speak *ex cathedrâ* of this work; for, to confess the truth, we never doctored a horse in our lives; we must, consequently, leave the ιππιατροι to give a detailed account of its merits. There is one point, however, of which we are able to judge: the book is remarkably clear and intelligible; its free and masculine style does Mr. Percival infinite credit.—Ed. *Med. Quart. Rev.*]

SMALL HOSPITALS.

There are only fifteen beds in the hospital of Goettingen, and I do not wish for more. I do not think that the experienced practitioner is formed by the number of patients. Experience is the result, not of seeing merely, but of reflecting. It is not eating, but digestion, that gives strength. A physician who tells us that he visits a hundred and fifty, and even a greater number of sick people daily, has, in my opinion, so little pretensions to the title of an experienced man, that I would even deny that he had any experience at all.—*Lancet*, from *Richter's Med. and Surg. Observ.*

[Fifteen beds may be enough for the physician, but more, we think, are required for the pupils; just as a few books are enough to study and digest, but we wish for a library to consult: for the pupil is disappointed, if, in a year's attendance, he has not had an opportunity of witnessing almost everything that is remarkable in disease, and brilliant in operations.—Ed. *Med. Quart. Rev.*]

PURE TANNIN.

Still more recently a friend of mine, M. Pelouse, professor at the Polytechnic School, whilst treating by æther, in a vertical tube, the powdered poison-nut (*Strychnos nux vomica*), made a discovery of much importance in organic chemistry, and I doubt not also in medicine. I allude to *tannin*. This immediate principle, so universal in the vegetable kingdom in the wood, the roots, and bark of the oak, the bark-tree, the ratanhia, &c.—which forms the active principle of almost all the astringents used in medicine,—this immediate principle had long since been obtained, but always impure, constantly combined with the acids or alkalies employed in its preparation, constantly insoluble and modified. But, in treating by æther the powder of St. Ignatius's bean, of the gall-nut, of catechu, and several other substances, in a vertical apparatus, M. Pelouse saw a yellowish liquid, transparent, and of a syrupous consistency, composed of tannin and æther, pass off: it was soon followed by a stream of pure æther, which remained floating on the surface of the dissolution of tannin. The æther carefully poured off, the syrupous dissolution was evaporated at a low heat, and gave a residue of tannin perfectly pure, crystallisable, soluble in water and alcohol; in short, possessing all the properties which characterize it in the plants in which it exists.

This simple process is perfectly applicable to the gall-nut, and yields a large proportion of tannin. This new produce thus prepared, will bear to all other astringents used in medicine, the same relation that quinine bears to bark, morphine to opium; and like them may, it appears to me, be substituted with advantage to its parent substances. To M. Pelouse it belongs to indicate the full bearing of his brilliant discovery, and I am happy to announce that he is on the point of publishing the results of his experiments on this interesting subject.—*The Monthly Journal of Medico-Chirurgical Knowledge.*

[This extract is from the polyglot Journal mentioned in our last number: in spite of its dog-English, its curiously small type, and its being three or four months behindhand, our contemporary (if it is not an anachronism to call it by that name,) has great merits: its articles are pregnant with good sense and practical information, and the plates of topographical anatomy are not only extremely useful, but remarkably beautiful.—Ed. *Med. Quart. Rev.*]

ON THE ACTION OF CHLORINE ON METALLIC IODIDES.

By A. T. Thomson, m.d., Professor of Materia Medica in the University of London.

To Mr. Richard Phillips.

5th May, 1834.

Dear Sir: It has been long known that liquid chlorine, that is, a solution of chlorine in water, added to solutions of metallic iodides, or, as they then become, hydriodates, sets free the iodine, and thus enables it to be detected in minute quantity on the addition of starch. But it is also well known, that a very small excess of the solution of chlorine destroys the colour of the iodine of amidine, and renders the test fallacious. To remedy this disadvantage, I have substituted chlorine gas for the liquid chlorine, and find that it is capable of discovering the minutest portion of any hydriodate in solution, even in mixed fluids. The method of testing is to mix a small quantity of solution of starch in the fluid to be tested, and pouring on the surface of the liquid some chlorine gas; as soon as the gas reaches the surface a thin film of blue appears, and gradually pervades the whole of the liquid, if any hydriodate be present. The advantage of the test is the impossibility of adding too much, as the action commences on the surface, and the superabundant chlorine, which is mixed with the common air in the upper part of the test tube or the glass, is soon dissipated.

As a proof of the delicacy of the test, I may add, that four minims of a solution of hydriodate of potassa, containing one drachm in the fluid ounce, were added to a fluid ounce of water, and tested by the method above described, when the presence of free iodine was immediately rendered evident. The proportion of the hydriodate in this case being only $\frac{1}{900}$th, I conceive that the test is adequate for any experiment in which it may be required to ascertain the presence of a hydriodate in solution.

The theory of the process is too obvious to require any comment. Your making this test generally known through the medium of the Philosophical Magazine, will greatly oblige,

Yours faithfully,
A. T. Thomson.

—*The London and Edinburgh Philosophical Magazine.*

MEDICAL POLITICS AND INTELLIGENCE.

WHAT CAN THE LEGISLATURE DO FOR US?

We fear that if an impartial estimate were made of all that can be done for the medical profession by force of law, the catalogue of possibilities would bear too great a resemblance to Martial's review of his own works:

> Sunt bona, sunt quædam mediocria, sunt mala plura.

In the first place, the *bona* are, the repeal of the Apothecaries' Act, that epitome of mischievous absurdities. By repealing this monstrosity, we get rid of the apprentice-system, and youths of sixteen, destined for the practice of physic, will no longer spend five years in mixing medicines, as this is an art that may be learned admirably well in three months.

Then for the *mediocria*, we may have some little alterations in names and titles; a wholesale M.D. manufactory will perhaps be set up in London, and diplomas may be granted on terms that will utterly ruin the established factories in the North. This will make a number of people very happy for six months, till they wake from their dream of dignity, and regret the few but solid sovereigns which have left an empty parchment as their substitute.

And now, alas! for the *mala plura*. We fancy that a crusade against unlicensed practitioners would be very agreeable to many of the so-called medical reformers; for, as the physicians, a century and a half ago, found themselves undersold by the apothecaries, and attempted, but in vain, to check the plebeian innovation by verdicts and decisions, so now the apothecaries complain that the druggists are ousting them from practice, and that a man who knows no more than an apothecary of Queen Anne's days, will make his comfortable £1000. per annum by counter-practice, with occasionally a few snug visits under the rose. According to Gray, indeed, in the preface to his Supplement to the Pharmacopœia, the druggists' practice is legal, as the Apothecaries' Act was restricted to those who "practise as apothecaries," and "à fortiori, the midwives, herbalists, cuppers, barbers, electricians, galvanisers, dentists, farriers, veterinary surgeons, village wisemen, and cowleeches, are left in full possession of their ancient practice, and may be employed by those who place confidence in them, as they cannot be confounded with apothecaries, though the chemist and druggist may." (Fourth edit. p. xxvii.)

We would not, however, recommend any of the village wisemen, or other of the younger sons of Galen included in the above quotation, to risk a visit to the Court of King's Bench on Mr. Gray's authority; for, though his treatise is excellent in pharmacology, it is by no means a text-book in law.

Still, legally or illegally, the druggists must and will practise, and, we will add, ought to practise; as long as extreme cheapness is essential to many customers, so long must slight or coarse goods be got up for their use, all Acts of Parliament to the contrary notwithstanding. Everybody would like to have the advice of the King's physician rather than go to Mr. Bolus, but Mr. Bolus gives credit, and this is a *sine quâ non* with many patients. Other sick again have neither a guinea for the first, nor courage to face the voluminous bill of the second; but they have ninepence, and this will buy them the somewhat hasty, yet perhaps decent empirical advice of a druggist, gabbled across his counter, and terminating in the exhibition of a vigorous black draught.

The cant of pretended reformers about "protecting the public from irregular practitioners," is evidently based on the false supposition that patients are quite in the dark as to the relative merits of medical men; but this is rarely the case. A man afflicted with cynanche, though his capacity were as straightened as his fauces, would willingly seek the advice of a Baillie or an Armstrong; it is the *res augusta domi* which compels him to go to somebody in a court, or to buy a box of black currant lozenges, or to let his throat get well of itself.

We should be glad to know, too, by what unheard-of severities, by what Russian discipline, it is proposed to put down all practice, save by men with properly sealed parchments? Are we to have officers of medical excise, empowered to enter houses strongly suspected of harbouring unlicensed medicine-chests? Or will my Lady Bountiful be allowed (like the master of a house under the Conventicle Act,) to physic her household and sundry poor neighbours, provided that her hospital does not exceed twenty beds? Shall we hear of the triumphant seizure of a cask of pennyroyal water, or will rhubarb pies be searched, charged on oath with being made with the root instead of the stalk?

In Spain, indeed, a dose of tartar emetic cannot be got without a physician's prescription; and a learned friend of ours, who found himself compelled to put some of that triple salt into his wine, as a thief-trap, was obliged to lay a deep scheme to obtain possession of it. It is impossible to imagine that the hideous chimeras of such *soi-disant* medical reformers can be realised; yet we fear that our profession, in calling for the aid and protection of the legislature, will find themselves in the condition which history and fable alike point out as the inevitable destiny of the weak, who intrust the management of their affairs to the strong.

SELF-SUPPORTING DISPENSARIES.

In our second Number we made a few observations on the advantages to be derived from these useful institutions, and we return to the subject with the greater pleasure, that some attempts (feeble and imperfect ones, but still attempts,) have been made to supply a deplorable void in the London practice of physic. The first that we heard of is called the Medico-Chirurgical Dispensary, situated in Crown-street, Soho; and one of its admission letters, now before us, informs us, that "this institution was established for the purpose of remedying the objections which at present apply to dispensaries, namely, the difficulty and loss of time incurred in procuring letters of admission. It is not supported by charitable contributions, but by a small charge to the patient of fourpence per day, or two shillings per week, which it is computed will repay the expenses attending it. When patients require to be seen at home, the charge will be double." We really see no objection to this method of paying a groat a day, by which a man in middling circumstances may enjoy the luxury of constant medical attendance for six pounds one shilling and eightpence per annum; but we are rather annoyed by a short sentence which follows: "A physician and surgeon attend daily at twelve o'clock." Now, although every medico-chirurgical dispensary cannot expect to be attended by physicians or surgeons of name in one sense, they ought to be of name in the other: for our own part, we should not like to be physicked or incised by men of no name at all. In truth, we would rather have pseudonymous than anonymous doctors; and we observe in authentic records, that, when Apollo was wont to wander upon earth, he always took up some name, and never practised under the title of ὁ δεινος, or Dr. ——. However, as six months have elapsed since we were favoured with the dispensary letter in question, we trust that this deficiency has been supplied.

We have likewise received the prospectus of another institution, accompanied by the following note: "*The surgeons of the St. Pancras Medical Association present their compliments to the Editor of the Medical Quarterly Review, and request to be favoured with his opinions in the next Number of that Journal.*"—We trust that we shall not be thought wanting in courtesy, far less in justice, if we state two most obvious objections to the plan of this institution. The first may be considered as a matter of form or ceremony, but it is not so. The only persons whose names appear on the face of the prospectus, as members of the association, are the eight medical men who intend to treat the patients. Now, it appears to us absolutely requisite that every scheme of this kind should be backed by some persons of high station; some persons, in fact, whose rank, though it by no means removes them from strife or dispute, at least elevates them far above the sphere of professional squabbles, and who are valuable to charitable societies, not only as patrons, but as umpires. Such persons may be compared to the weight in a clock, which, though apparently inert, is essential to the existence of a well-regulated movement. It is very possible that this objection, like the one we made to the Crown-street document, may have been annulled by the progress of the institution, but our second one is more important.

The medical men attached to this institution appear to be all of them general practitioners, and we find them telling us, in consequence, that "the surgeons constituting this association will dispense their own prescriptions, thus saving the cost of keeping up a dispensary house and appendages, and salary of dispensing apothecary; a charge equal to at least a third of the whole income of such institutions: in other words, of every guinea subscribed by the humane and excellent supporters of these charities, less than 14*s*. are appropriated to the literal benefit of the poor."—Surely this is very poor reasoning; for, if the tripartite division of the profession into physicians, surgeons, and druggists, be beneficial, (and few are crazed enough to deny it,) then, as Horace says, *Æque pauperibus prodest, locupletibus æque;* and the niggard economy which would deny the poor the benefit of the division of scientific labour is worthy of anything but applause. What should we say to a *gastronome* who should discharge his kitchen and scullery maid, under the shallow pretence that their wages might be "appropriated to the literal benefit" of his palate? We should say he was stark mad, and deserved never more to taste a savoury ragout. In small towns, as in small kitchens, a very minute division of labour cannot take place; but why should we be driven to shifts in London, and why, above all, in a dispensary, whose practice, conducted under the public eye, should be a model of all that is rational and scientific?

We could wish to see some societies of this kind intended for persons, who, though of a higher grade than those marked out by the St. Pancras Association, are yet wholly incapable of facing a doctor's bill. To a single man, living on 100*l*. a year, or a married man with an income of 250*l*., must not the anticipation of a long doctor's bill be more bitter than all the columba and quassia on which it is founded? To such a man the existence of a society which, for a guinea a year paid for each member of his family, would ensure him against one (not the least) of his anxieties, would be a real blessing: it would be like insurances against fire, and, like them, would mark an era in civilization.

METEOROLOGICAL REGISTER,

FROM MARCH 1 TO MAY 31.

By Messrs. HARRIS and Co., Mathematical Instrument Makers, 50, High Holborn.

	Thermometer.		Barometer.		De Luc's Hygrometer.		Winds.		Atmospheric Variations.
1834.	*max.*	*min.*	*max.*	*min.*	*max.*	*min.*			
Mar. 1 to 7	57	43	30.20	29.56	80	74	WSW	W	fine, rain, cloudy
14	58	37	.26	30.07	77	73	WNW	NE	fine, foggy, rain
21	51	32	.30	.10	71	66	ESE	SE	fine, foggy, cloudy
31	55	34	29.94	29.35	76	66	WSW	SW	fine, cloudy, rain
April 1 to 7	59	42	30.22	30.01	75	65	NW	NNE	rain, fine, cloudy
14	52	33	.12	29.76	75	63	N	ENE	fine, showery, fine
21	62	38	.11	.93	70	61	NNE	ESE	fine, fine, fine
30	64	40	.03	.06	74	62	SSW	NNE	fine, rain, cloudy
May 1 to 7	72	49	30.15	.43	75	64	SW	SSE	fine, rain, fine
14	72	52	.02	.35	69	61	SW	NW	fine, cloudy, rain
21	70	49	.20	.23	67	61	SW	NE	fine, showery, cloudy
31	72	45	.16	.81	63	58	NE	NNE	fine, fine, cloudy.

The quantity of Rain fallen in March, 94-100ths }
— — — April, 49-100ths } of an inch.
— — — May, 92-100ths }

NOTICES.

We have received Dr. KAY *on Asphyxia,* Dr. WILSON PHILIP *on Sleep and Death,* Dr. HENDERSON'S *Translation of Raspail,* Mr. HEMING'S *Translation of Mad. Boivin, three Parts of a Cyclopædia of Practical Medicine and Surgery, published at Philadelphia, the Dublin Journal of Medical and Chemical Science, and several Fasciculi of* Dr. QUAIN'S *Anatomical Plates: we shall review them in our next.*

We also beg to acknowledge the receipt of a "Sketch of the Medical Topography of the Hundred of Penwith, comprising the District of the Land's End, in Cornwall," by Dr. FORBES. *This interesting Paper forms a part of the second Volume of the Transactions of the Provincial Medical Association, which we have reviewed in our present Number.*

We regret that, owing to an unforeseen disappointment, we have not been able to review Dr. BOW'S *Work on Inflammation in this Number; but we shall not fail to do so in our next.*

Considering it sufficient to give an account of Books actually published, we think it unnecessary to tantalize our readers with probable or possible Books; and we therefore abstain from giving what is called "Literary Intelligence." Those advertisements of Books about to be published can appear, however, in our Advertising Sheet.

Contributors are requested to favour us with their Communications before the 16*th of the month preceding publication.*

We have not inserted Dr. WILLIAMS'S *Letter, as it seems to have been sent as a circular to all the Medical Journals: it was printed in the Lancet a few weeks since.*

Mr. HOWSHIP'S *Paper on the Œstrus Humanus has been received, and will appear in No. V.*